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From Extension Editorial Office
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AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

December - January - February

December 3	Farm Structures Day. Agricultural Engineering Building, University of Illinois, Urbana. Registration begins at 8:30 a.m., program at 9:30 a.m.
December 12	Illinois Purebred Sheep Breeders Show and Sale. Stock Pavilion, University of Illinois, Urbana.
January 9	Annual Meeting, Illinois Swine Herd Improvement Association. Jefferson Hotel, Peoria.
January 26	Crop Performance Day. University of Illinois, Urbana.
January 27-28	Illinois Custom Spray Operators' Training School. University of Illinois, Urbana.
February 1-3	Rural Pastors and Lay Leaders Short Course. University of Illinois, Urbana.
February 2-3	Agricultural Industries Forum. University of Illinois, Urbana.
February 2-3	Illinois Home Bureau Federation Annual Meeting. University of Illinois, Urbana.
February 3-4	Illinois Feed and Nutrition Confernce. University of Illinois, Urbana.
February 4	Annual Fertilizer Industry Conference. University of Illinois, Urbana.
February 4-5	Annual Meeting of Illinois Society of Professional Farm Managers. University of Illinois, Urbana.
February 8-March 18	Winter Short Course in Agriculture. University of Illinois, Urbana.
February 8-11	Cattle Feeder Days. University of Illinois Dixon Springs Experiment Station, Robbs.
March 3	Swine Day. University of Illinois, Urbana.
March 31, April 1-2	Farm and Home Festival. University of Illinois, Urbana.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

January - February

January 6-8	Illinois Canners School. Urbana-Lincoln Motor Inn, Urbana, Illinois. Registration begins January 6 at 12 noon; formal program begins at 1:50 p.m.
January 9	Annual Meeting, Illinois Swine Herd Improvement Association. Jefferson Hotel, Peoria.
January 12-13	Cook County Area Vegetable Growers' School. North Cook County and surrounding area will meet on the 12th in the Farm Bureau Building, Arlington Heights, at 9 a.m. South Cook county and surrounding area will meet the 13th in Municipal Building, South Holland, at 9 a.m.
January 14	Hancock County Area Horticultural Day. Farm Bureau Building, Carthage. 9:30 a.m.
January 14-15	State Vegetable Growers' Meeting. Joliet.
January 15	Central Illinois Horticultural Society Meeting. Adams County Shippers Association Meeting Room, Quincy. 9:30 a.m.
January 19-20	Madison-St. Clair Counties (and surrounding area) Vegetable Growers' School. Vegetable Growers' Hall, Caseyville. 9:30 a.m.
January 26	Crop Performance Day. University of Illinois, Urbana.
January 27-28	Illinois Custom Spray Operators' Training School. University of Illinois, Urbana.
February 1-3	Rural Pastors and Lay Leaders Short Course. University of Illinois, Urbana.
February 2-3	Agricultural Industries Forum. University of Illinois, Urbana.
February 2-3	Illinois Home Bureau Federation Meeting. University of Illinois, Urbana.
February 3-4	Illinois Feed and Nutrition Conference. University of Illinois, Urbana.
February 4	Annual Fertilizer Industry Conference. University of Illinois, Urbana.
February 4-5	Annual Meeting of Illinois Society of Professional Farm Managers. University of Illinois, Urbana.

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February 4-5	Horse Breeders Short Course. University of Illinois College of Veterinary Medicine, Urbana.
February 5-7	Illinois Rural Youth Winter Rally, University of Illinois, Urbana.
February 8-March 18	Winter Short Course in Agriculture. University of Illinois, Urbana.
February 8-11	Cattle Feeder Days. University of Illinois Dixon Springs Experiment Station, Robbs. (These are tours of the Station's beef cattle operations and facilities.)
February 9-10	Southern Illinois Horticultural Society Meeting. (Fruit section will meet on the 9th; vegetable section will meet on the 10th.) Plant Industries Building, Southern Illinois University, Carbondale. 9:30 a.m. both days.
February 10	Calhoun County Area Orchard Day. Farm Bureau Building, Hardin. 9:30 a.m.
February 16	Sheep Day. University of Illinois Dixon Springs Experiment Station, Robbs.
February 25	Centralia Area Strawberry Meeting. Sentinel Building, Centralia. 7:30 p.m.
March 3	Swine Day. University of Illinois, Urbana.
March 31, April 1-2	Farm and Home Festival. University of Illinois, Urbana.

for dailies

UNIVERSITY OF ILLINOIS
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Farm News

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FOR IMMEDIATE RELEASE

Soil Insecticide Use Increasing

URBANA--The number of acres treated with soil insecticides in Illinois increased from 650,000 in 1957 to 800,000 in 1958.

This increase, says J. H. Bigger, Illinois Natural History Survey entomologist, indicates that farmers are becoming more aware of the value of applying soil insecticides.

Bigger will give more information about soil insecticides when he summarizes his 1958 research program at the 1959 Illinois Custom Spray Operators' Training School. He will also summarize his five-year study on use of soil insecticides in Illinois.

This annual event will be held in the Illini Union on the University of Illinois campus. Dates are January 28 and 29.

H. B. Petty, extension entomologist in charge of the school, says that anyone who is interested in the agricultural chemical industry is invited to attend. For more information or for a copy of the program, write to Petty at 280 Natural Resources Building, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

New Grape Varieties Show Promise for Illinois Growers

URBANA--Illinois home gardeners and commercial grape growers may want to try one or more of the new grape varieties now available for next season.

H. C. Barrett, University of Illinois horticulturalist, reports that Illinois growers have tried many varieties in attempting to overcome some of the shortcomings of the popular Concord grape. Although they have not been too successful, several new varieties now promise to combine more of the desirable Concord fruit characteristics with fewer of the undesirable ones.

Barrett cites Buffalo, Beaver, Kendaia, Athens and Steuben as good varieties for Illinois. All of them maintain the Concord fruit characteristics the public has come to accept, but they have fewer of the Concord's unattractive features.

Buffalo is rated the most useful American-type general-purpose grape yet tested at Urbana. It is noted for high-quality fruit, early maturity, high production and vigor. Buffalo matures nearly three weeks ahead of Concord, and mature fruit will hang on the vines for some time without losing quality. Pasteurized juice and jelly from Buffalo are often rated superior in flavor and quality to those from Concord.

Beaver, Kendaia and Athens are other early varieties that have performed well in University of Illinois tests. Beaver matures about the same time as Buffalo, with Kendaia and Athens a week or ten days later.

Steuben is a midseason black grape that matures up to a week later than Concord and keeps well after maturity. It is useful in extending the season of Concord-type grapes.

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FOR IMMEDIATE RELEASE

Sheep Feeding Trials Compare 1908 and 1958 Rations

URBANA--A good 1958 lamb fattening ration will put on more than twice as much average daily gain as the typical ration fed 50 year ago.

U. S. Garrigus, University of Illinois sheep division head, reported these results of recent sheep feeding trials conducted for the 50th anniversary of the American Society of Animal Production exhibit at the recent International Livestock Exposition.

To run the trials, Garrigus and his staff divided 96 choice to fancy 71-pound black-faced western lambs into twelve lots. They then faced and tagged, drenched and dipped all of the lambs and vaccinated them against sore mouth and overeating disease.

Two groups of the lambs got a 1908-style ration of shelled corn and alfalfa hay. Each lamb ate about two pounds of hay per day. Shelled corn was hand fed at the rate of one-third pound and then increased until the lambs left some corn in the trough. For all of this effort, average daily gain for 52 days was only 0.29 pound per lamb.

For comparison, 1958 feeding methods highlighted the other trials. All of the other lambs were fed complete rations containing enough protein to take full advantage of experimental stilbestrol implants. One of these modern rations was mixed, processed and self-fed in the best 1958 style.

In the other rations, the researchers substituted new high-oil, high-protein corn for the standard hybrid corn and also put in a

low level of antibiotics. The ration was then pelleted and self-fed to lambs implanted with 3 mg. of stilbestrol.

Average daily gain with this up-to-the-minute feeding method was 0.64 pound, or more than twice that from the hand-fed shelled corn and alfalfa ration. The other complete rations all show greatly increased gains over those of 1908-style feeding.

Garrigus points out that, even though results with modern rations are good, it is possible to get still better gains. As evidence of greater improvement, he points to the fact that some individual lambs in the trials gained as much as a pound a day for 28 days. Others put on as much as 48 pounds in 52 days.

The trial summary shows significant gain increases in stilbestrol-implanted lambs. Pelleting these complete rations and substituting high oil and protein corn did not give much additional response. Garrigus relates that other research data, which show less benefit from pelleting high-quality rations than low-quality feeds, may explain part of this effect.

He concludes that using any of the modern rations for 30 to 60 days in drylot will put as many pounds on sheep as the 90- to 120-day hand-feeding schedules common years ago, and with much less labor.

The researchers will collect carcass data on three lambs in each of the trial lots to check any differences in grade, dressing percentage, weight of cuts, character of fat and lean and other measurements in order to complete the study.

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FOR IMMEDIATE RELEASE

Illinois Research Fights High Corn Disease Losses

URBANA--Corn disease losses add up to big business--they cost Illinois farmers an estimated $70,000,000 every year.

A. L. Hooker, University of Illinois plant pathologist specializing in corn diseases, is heading research efforts to cut these losses. His research program is part of the over-all effort of the comparatively new Plant Pathology Department of the College of Agriculture. The department studies diseases and their control, including the use of antibiotics, on a wide range of farm, garden and orchard crops.

Hooker estimates that about 25 diseases affect the Illinois corn crop. They attack all parts of the plant--ears, leaves, stalks, and roots--at various stages of plant growth. When they strike, the result is lower corn yields.

Good farming practices will hold many of these corn diseases in check. But the particular corn hybrid that is being grown, along with changing weather conditions and the concentration of disease organisms, often sets the losses in individual fields.

Since man has little control over the weather, Hooker believes the best approach to the corn disease problem is to grow hybrids with built-in disease resistance. He has designed his research program to help plant breeders and seedsmen develop disease-resistant field hybrids that sacrifice nothing in the way of high yields and other traits so essential to modern hybrids.

Hooker explains that resistance to corn diseases is inherited. Native corn types frequently will resist some disease, while the newer

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hybrids will not. In some cases researchers check corn varieties from foreign countries for sources of disease resistance.

Using testing methods and breeding procedures developed by research, workers can combine the disease resistance of otherwise poorly suited varieties with the high yielding traits expected in modern corn hybrids.

Before coming to Illinois, Hooker carried on research at the Iowa and Wisconsin Experiment Stations and for the United States Department of Agriculture. He has had training in plant pathology, plant breeding and genetics.

Hooker is continuing a basic research project started sometime ago. It specifically involves the effects of disease organisms on corn plants and the genetics and physiology of relations of the host plant and the parasite.

He reports that corn is well suited to basic research, and the results he uncovers in the study may be applied later to other plant and animal disease problems.

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FOR IMMEDIATE RELEASE

Further Rise in Corn Prices Not Likely

URBANA--Illinois farmers should not expect corn prices to rise enough over December prices to pay for further storage costs, according to L. F. Stice, grain marketing economist at the University of Illinois.

Stice points out that the situation causing favorable returns from storing the 1957 corn crop is different from the one this year. A year ago heavy marketings and poor-quality corn depressed prices from harvest through the winter. Then corn prices advanced about 25 cents from winter to summer.

However, Stice believes corn prices will not advance 25 cents a bushel from now to next summer, as they did a year ago. The seasonal rise may actually be less than the normal 12 cents a bushel.

Recent corn prices have gained much support from light marketings. Since late November, corn receipts at the 13 largest markets have lagged 15 to 50 percent under those of a year ago. Last year corn marketings did not reach their peak until December; this year they have been more nearly normal, with peak sales in late October and early November.

As a result, December corn prices were about the same in both 1957 and 1958, even though 1958 corn and other feed grain crops were much larger.

Government sales of corn also have a major effect on the corn price outlook, the economist points out. Last year corn prices were

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strengthened by relatively light CCC sales and the payment-in-kind program, which began May 12.

Under this program, export subsidies on corn were paid in grain rather than cash. And, of even greater importance, CCC stopped direct sales of its corn to exporters. As a result, corn prices were given a boost as corn exports started coming from free market supplies rather than government stocks.

Corn prices will gain support from increases in hog and poultry production and high-level cattle feeding this season. However, according to the USDA, most of the increased feed grain use will be in oats, barley and grain sorghums rather than corn.

The only hope for any great improvement in corn prices hinges on farmers' putting large amounts of corn under the $1.06 loan program. Not enough farmers are eligible for the $1.36 support program to tighten market supplies. The 1958 crop is over 400 million bushels larger than the expected disappearance, and CCC will also be selling corn. However, at December market prices, farmers are ahead to sell corn rather than put it under the $1.06 loan.

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(Note to Editors: This is the first of four stories covering talks presented during the Illinois Canners School January 7, 8 and 9 in Urbana.)

FOR RELEASE JANUARY 7, 1959

Illinois Canners School No. 1

Food Supply Protected Against Insecticide Contamination

URBANA--Contrary to many opinions, American food products are not being contaminated by poisonous insecticides applied to growing crops.

George C. Decker, head entomologist with the Illinois Natural History Survey and Illinois Agricultural Experiment Station, said today that these opinions exist because insecticides are applied to practically every crop that is raised today.

But these insecticide residues are not so persistent as some people believe. And all recommendations for using insecticides prescribe minimum intervals between the last treatment and harvest. These intervals will assure residue levels well below the safe level.

Decker was speaking before the Illinois Canners School, which is meeting this week in Urbana.

He explained that it's the job of the Federal Food and Drug Administration to protect the wholesomeness and safety of our food supply. Through rigid regulations, this organization demands (1) that food be protected from diseases and insects and (2) that these pests and diseases be controlled without harmful residues of chemicals getting into food supplies.

It is true that traces of pesticidal chemicals appear in practically all foods. But the Federal Food and Drug Administration has established several thousand tolerance levels for pesticidal chemicals involving over a hundred chemicals. And the small amounts of chemicals do not in any way present a hazard to the consumer.

Decker also pointed out to canners that tolerances for pesticides on raw agricultural commodities apply to animal feeds as well as to food for man. Thus canners must consider the possibility of pesticide residues on plant by-products that may find their way into animal feeds.

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FOR RELEASE JANUARY 8, 1959

Illinois Canners School #2

See More Corn Borers for 1959

URBANA--Early signs indicate that European corn borers in Illinois will be more numerous in 1959 than they were in 1958.

H. B. Petty, extension entomologist with the University of Illinois and Illinois Natural History Survey, reported this fact today (January 8) during a talk before the Illinois Canners School in Urbana.

According to Petty, the first-generation corn borer population was greater in 1958 than in 1957. This fact is based on a survey Petty and other entomologists conducted in the fall of 1958. Most borers are located in the west-central and northwestern sections of the state.

Other insect outlooks show that the chinch bug population is light in eastern Illinois. It is also light in one small area in DuPage, Kane and Kendall counties. In an area running from central to western Illinois, numbers are moderate.

Grasshopper populations are generally low throughout the state except for one small area in the southeast.

In 1958 Petty reported that corn earworm populations were extremely low. Only in the southern one-third of the state did field corn suffer damage. And this damage was light. Sweet corn in the northern two-thirds suffered some damage, but it was lighter than in previous years.

On the other hand, corn sap beetles have been increasing for the past few years. Damage was expected throughout Illinois in 1958, but it did not occur. Sweet corn showed some damage in some localized areas around East St. Louis, Carbondale and Downers Grove. Petty says this pest may cause more trouble in the future.

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FOR RELEASE JANUARY 8, 1959

Illinois Canners School #3

Blame Northern Blight for Sweet Corn Disease Losses in 1958

URBANA--Northern corn leaf blight, the same disease that was responsible for widespread yield losses in field corn last year, was the most serious Illinois sweet corn disease in 1958.

M. P. Britton, University of Illinois extension plant pathologist speaking at the annual Illinois Canners School this week, says much of the late-planted commercial sweet corn acreage was damaged. Fields maturing during the last two or three weeks of the packing season took the heaviest losses.

Northern corn leaf blight appears as long, lens-shaped spots on the leaves of sweet corn and field corn. The spots may be an inch wide and up to six inches long.

Under favorable conditions, these spots may be so numerous that they overlap, killing entire leaves. If the leaves are killed soon after silking, corn yields may be cut more than 30 percent. Later infections are not quite so serious.

Britton reports that the time when the disease first appears is set largely by weather conditions. He blames the cool, moist 1958 spring and early summer for the heavy sweet corn infection.

Northern corn leaf blight can be controlled by proper fungicides. Maneb and zineb sprays as often as twice a week during the pretasseling period will hold the disease in check, but treatment is too costly to be practical right now.

Northern blight in field corn weakens the host corn plant and often causes heavy stalk rot infections and increased stalk breakage before harvest.

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FOR RELEASE JANUARY 9, 1959

Illinois Canners School #4

Cite Tomato Crop Residue as Source of Ripe Rot Infection

URBANA--Ripe rot or anthracnose in tomatoes overwinters principally in tomato skins and vines left on home gardens and commercial fields, according to M. B. Linn, University of Illinois plant pathologist.

Reporting on the development and control of anthracnose at the annual Illinois Canners School this week, Linn says it will not help to clean up gardens now, but he suggests that home gardeners who did not clean their plots last fall plan spray treatments to control ripe rot next year.

Ripe rot first appears in the early summer as small spots on tomato leaves. The spores then spread to the young fruit, but no symptoms appear until the red-ripe stage. Then the fungus spreads rapidly, causing a typical saucer-shaped dark spot on the tomato skin. Within a few days the infected spots produce spores for new infections.

The disease can be controlled by proper use of fungicides. Linn recommends maneb, zineb, captan or ziram in five or six applications, starting about two weeks after flowering and spraying every ten days thereafter. Both foliage and fruit must be completely covered with the spray.

Circular 683, "Tomato Diseases and Insect Pests," describes anthracnose and other tomato diseases and control measures. It is available upon request from the College of Agriculture at Urbana.

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for dailies

Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Plan Crop Performance Day on January 27

URBANA--Latest results of 1958 commercial and experimental hybrid corn tests will be reported at the University of Illinois Crop Performance Day on January 27, according to extension agronomist W. O. Scott.

Other topics on the day's program include discussions of corn diseases, liquid vs. dry fertilizers, soil insecticides, weed control in corn, new oat, soybean and wheat varieties, and barren stalks in corn.

University of Illinois soils, crops and plant disease research workers will make these reports on their most recent research. All farmers and others interested in these topics are cordially invited. The meeting will begin at 9:30 a.m. and adjourn at 3:30 p.m. in Room 112 Gregory Hall. Last year more than 300 farmers and seedsmen attended the Crop Performance Day program.

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FOR IMMEDIATE RELEASE

Plan Egg Grading School at UI, February 3-6

URBANA--The fifth Illinois Egg Grading School will be held at the University of Illinois on February 3-6, according to J. R. Roush, extension economist in poultry marketing. Class sessions will begin at 9:00 a.m. and adjourn at 5:00 p.m. each day. The school is designed to teach the latest techniques of determining and measuring egg quality.

Those who attend the school will be given both a written and practical examination on the last day of the school. Certificates will be awarded to those who pass the tests satisfactorily.

Roush points out that advance registration is necessary, since the school requires eggs and other supplies for each student. Enrollment must be limited, and only the first 40 applications will be accepted. Requests to attend should be sent to J. R. Roush, 425 Mumford Hall, Urbana, along with $10 registration fee by January 27.

The registration fee covers only the expenses for eggs and supplies. Each student will also have to pay for his own meals and lodging during the school.

These schools are sponsored by the University of Illinois, the Illinois and U. S. Departments of Agriculture and Southern Illinois University. All sessions will be held in the Veterinary Medicine Building.

For further information regarding the school, contact Roush or your local farm adviser.

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FOR IMMEDIATE RELEASE

Special Milk Program Boosts Milk Consumption in U. S. Schools

URBANA--With more than 76,000 schools and institutions participating, milk consumption under the Special Milk Program rose to a new high during the 1957-58 school year.

Robert Jacobson, University of Illinois milk marketing specialist, says that in the fiscal year ended June 30 the program used a total of 1,918 million half-pints of milk. He believes it is sure to top this figure during the current school year.

The Special Milk Program has seen steady growth since it was started in 1954. After a two-year period during which the program was available only to schools, it was extended to summer camps and child-care institutions. Last July the program was continued for another three-year period with authorized annual expenditures of up to $75 million.

The Special Milk Program is separate from the National School Lunch Program, which supplies milk only for lunch periods. Currently about two billion half-pints of milk a year are served regularly with school lunches.

But when local school officials found that youngsters wanted to drink more milk, the Special Milk Program was started to serve milk at other times during the school day.

Nursery schools, settlement houses, summer camps and other child-care institutions also have found that children can and will drink more milk.

The Special Milk Program gives these children the opportunity to buy milk at prices three to four cents lower than they would ordinarily pay.

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FOR IMMEDIATE RELEASE

UI Veterinarian Warns of Leptospirosis

URBANA--With the early baby pig season in full swing, Dr. J.R. Pickard, University of Illinois extension veterinarian, warned farmers of the threat of leptospirosis, which now causes $100 million a year in livestock losses.

The disease causes cattle and swine to lose unborn calves and pigs. When the infection strikes swine during mid-pregnancy, it usually causes loss of pigs or birth of weak ones.

Hogs can also become hidden carriers of leptospirosis. This poses a continuing threat, especially where hogs and cattle come together, says Dr. Pickard. Swine can be carriers of the disease for as long as a year. A veterinarian can vaccinate against the condition, and this method is widely used in many areas.

Leptospirosis is often spread through drinking water contaminated by urine from infected animals.

Besides vaccination, a good safety measure against the disease is to blood-test all newly purchased swine before bringing them on to the farm, Dr. Pickard adds.

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ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS JAN. 7, 1959

Hog Market to Have Stability in 1959

The hog market sagged at the year's end. Hog prices dipped to about a $16.50 average at terminal markets, which was down about $2.00 from a week before and also $2.00 lower than the year before.

This price difference is not excessive, considering that summer farrowings (June-July-August) were 18 percent larger than the year before and farmers in nine corn-belt states had 22 percent more hogs three to six months old on December 1 than they had last year.

Marketings may have been bunched around the year-end. There were widespread reports that market supplies would increase sharply after the first of the year and that prices would drop accordingly. Perhaps some farmers were aiming to "beat the break."

The Christmas—New Year holidays often mix up the market and make it difficult to draw conclusions from market receipts and price trends. These holidays came on Wednesday in 1957 and on Thursday in 1958.

Market receipts in prospect for the first 90 days of this year are larger than last year, but not so large as during the last 90 days of 1958. The following figures will illustrate this point:

On December 1 farmers in nine corn-belt states had on hand 13.8 million hogs between three and six months of age. That was 22 percent more than a year before but 38 percent less than last September 1.

Hog prices averaged $20.20 at terminal markets during the first three months of 1958 and $18.40 during the last three months. Prices for the next three months seem likely to be around the lower of these figures.

Season-to-season market supplies of hogs in prospect for 1959 are more nearly equal than those of any previous year since World War II. The indicated 1959 spring pig crop is only 39 percent larger than the preceding fall pig crop. By contrast, the 1958 spring crop was 45 percent

larger than the preceding fall crop, and that memorable 1955 spring crop was 51 percent larger than the previous fall crop. The better balance between fall and spring pig crops this year will tend to stabilize prices.

Prices will probably not rise so much as usual in the first half of the year and may not decline so much as usual in the last half. The situation seems to call for selling hogs when they reach the most desirable weight rather than attempting to jump, or hold, for a high market.

Price differentials for weight vary from day to day and from market to market. Recently most markets were paying top prices for 200- to 220-pound weights, but Chicago and St. Louis were paying a few cents more for 180- to 200-pound hogs. Price discounts were small up to 240 pounds.

L. H. Simerl
Department of Agricultural Economics

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FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending January 9, 1959, is prepared as a special service by the University of Illinois grain marketing staff)

Corn, Soybean Prices Nearly Steady; Expect Bean Price Rise

URBANA--Corn and soybean prices have been marking time since before the holidays. Soybeans weakened one or two cents, and corn went down two or three cents and then back up, according to T. A. Hieronymus, University of Illinois agricultural economist.

Soybeans are now 11 cents below full loan, or more than enough to pay storage to June 1. It will take 100 to 125 million bushels going into loan to force the market price up to the loan rate.

At the end of November, 67 million bushels were under loan. The quantity at the end of December will be announced in about 10 days. With soybean prices below the loan for this long and large quantities still remaining on farms, Hieronymus expects more than the required minimum to go under loan or purchase agreement.

Soybean prices are expected to go up to the CCC sales price or loan price, or somewhere between the two. Full loan price plus moisture premium is around $2.19 in the principal Illinois soybean-producing counties.

Right now it looks as if CCC sales policy starting June 1 will be to sell at the loan plus a 5-cent quality premium plus 1 1/2 cents per bushel per month. The CCC will absorb the elevator charges, so the truck price will be $2.21 1/2 and the bid to farmers $2.16 1/2.

If processors have to buy supplies before CCC soybeans become available, Hieronymus believes the price may well go to the full loan and then back down to the CCC price in June. If processors have large enough stocks to last to June 1, the price may not go to full loan.

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Farmers should be willing to sell at $2.16 or take a loan or purchase agreement, according to Hieronymus. Loans and purchase agreements are available until the end of January.

Corn movement continues to be relatively light in primary markets, but east-central Illinois farmers are selling substantial quantities. The price at $1.04 to $1.05 is above the low loan plus carrying costs to July 31. The CCC is expected to start a reconcentration and sales program soon in preparation for the huge takeover next summer.

If this occurs, Hieronymus believes it will effectively prevent any price increase for several months. It appears that prices will need to go back down in order to get enough corn into loan to force the market price above the loan. The only probability of a price rise next summer is for a poor growing season to develop.

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for dailies

Farm News

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FOR IMMEDIATE RELEASE

Junior Dairy Calf Sale February 28

URBANA--Saturday, February 28, has been set as the date for the 11th annual 4-H and FFA Dairy Calf Sale at Urbana.

J. G. Cash, extension dairy specialist at the University of Illinois College of Agriculture, says that breed committees have already selected about 90 purebred dairy calves in their respective breeds for the sale. Breed representatives are anxious to provide the best possible calves for the sale.

As soon as catalogs are off the press, one copy will be sent to each vocational agriculture teacher and each county farm adviser in the state, Cash says. Only bona fide Illinois 4-H or FFA members are eligible to buy at this sale.

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FOR IMMEDIATE RELEASE

Handle Insect Sprays With Care

URBANA--"Follow Directions" and "Be Careful" must be the watchwords of livestock owners spraying animals in winter for lice and other external parasites, says a University of Illinois veterinarian.

Dr. R. P. Link of the College of Veterinary Medicine points out that insecticides, carelessly used, can be dangerous to both people and livestock. But there is little danger if they are used strictly according to the recommended rates for approved purposes.

Lindane, probably the most common spray for cattle lice, rates as one of the safest insecticides in use today.

If lindane comes into contact with skin, remove clothing promptly and wash the area thoroughly. If it is swallowed, induce vomiting to empty the stomach, take two tablespoons of Epsom salts and call a physician.

Dr. Link lists some do's and don'ts for using lindane and other insecticides:

Read carefully all labels on packages and follow directions.

Wear protective clothes, and change to clean clothes after spraying.

Store all insecticides in original labeled packages, away from food and feedstuffs and out of reach of children and animals.

Dispose of containers by burning or burying.

Call a physician immediately if poisoning is known or suspected.

Don't breathe insecticide dusts, mists or vapors.

Don't spill liquid spray on the skin.

Don't eat or smoke until after hands and face have been washed.

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JER:cm
1/12/59

FOR IMMEDIATE RELEASE

Several Out-of-State Speakers Slated for Spray School

URBANA--Several out-of-state speakers who are outstanding specialists in the field of agricultural chemicals are slated to present talks during the Illinois Custom Spray Operators' Training School.

This 11th annual school will meet January 28 and 29 in the Illini Union on the University of Illinois campus. An informal coffee hour will be held from 7:30 to 9:30 the evening of January 27 for those who arrive early.

Presenting a talk on efficient and economical control of mosquitoes in urban areas will be H. H. Gunderson, Iowa State College, Ames. Gunderson, an extension entomologist, is widely known for his work in mosquito control.

Coming from the University of Wisconsin will be K. P. Buchholtz, professor of plant pathology. Buchholtz, a leading authority on weed control, has appeared at the spray school several times. His topics this year include control of quackgrass and new chemicals for weed control in legumes.

E. P. Sylwester will speak on controlling Canada thistle, one of the most obnoxious weeds in Illinois. Sylwester is an extension botanist and plant pathologist from Iowa State College. A well-known public speaker in the field of weed control, he will also discuss cleaning up highways and roadsides with herbicides.

Any person who is interested in agricultural chemicals is invited to attend the spray school. For more information or for a copy of the program, write to H. B. Petty, extension entomologist in charge of the school. Petty's address is 280 Natural Resources Building, University of Illinois, Urbana.

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PAC:cm
1/12/59

FOR IMMEDIATE RELEASE

Illinois 4-H Youth Attend Grain Marketing Clinic

URBANA--Two outstanding Illinois 4-H Club members are among the 24 delegates from 12 states attending the eighth annual 4-H grain marketing clinic and tour in Chicago this week.

They are Robert Bolin, Kankakee, and David A. Witt, Bowen. Both have outstanding records in the 4-H grain marketing program.

F. L. Haegele, University of Illinois 4-H specialist, also attending the event, says the 4-H'ers are rubbing elbows with seasoned grain traders on the floor of the famed Chicago Board of Trade, giving them an excellent chance to learn something about the marketing end of the grain business at first hand.

Robert C. Liebenow, President of the Board of Trade, and Norman C. Mindrum, director of the National Committee on Boys and Girls 4-H Club Work, welcomed the delegates to Chicago.

Tours at the three-day event include the Board of Trade, a General Mills processing plant, South Chicago, and the Museum of Science and Industry.

The educational part of the event features speakers and activities tracing the marketing of the grain from country elevators to finished cereal products. L. F. Stice, University of Illinois grain marketing specialist, is one of the speakers.

The clinic and tour is co-sponsored by the Chicago Board of Trade, the Extension Service and the National Committee on Boys and Girls 4-H Club Work. Hotel headquarters in Chicago are at the Conrad Hilton.

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1/12/59
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FOR IMMEDIATE RELEASE

Rural Pastors' Short Course Planned

URBANA--The 29th annual Rural Pastors' and Lay Leaders' Short Course is scheduled for January 26, 27 and 28, at the University of Illinois in Urbana.

Theme for this year's short course, according to D. E. Lindstrom, is "Spiritual and Moral Values in Rural Life." Lindstrom is a professor of rural sociology in the UI College of Agriculture and a member of the program planning committee.

Several of the speakers include Eugene S. Geissler, editor of Fides Publishers, Notre Dame, Indiana; Richard W. Poston, director of the community development department, Southern Illinois University; H. C. Hand, UI professor of education; and E. W. Mueller, rural life director of the National Lutheran Council.

The program will open Monday evening, January 26, with a dinner in the University YMCA. Featured speaker that evening will be Reverend James W. Sells, rural church editor of the "Progressive Farmer." On Tuesday and Wednesday all sessions will meet in the Illini Union.

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1/12/59
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ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS JAN. 14, 1959

SEVEN PERCENT MORE LAMBS ON FEED

Price Improvement Expected

Market supplies of fed lambs will be fairly abundant this winter. This is evident from the recent USDA report of sheep and lambs on feed.

On January 1 farmers were feeding 4,302,000 head of sheep and lambs. This number was 7 percent more than one year before, and about the same as on the corresponding date two years ago.

Most of the increase in lamb feeding this year is in Kansas, where 380,000 were reported on feed. This number is 69 percent more than last year. A doubling of the number of lambs on wheat pastures accounted for much of the increase in lamb feeding in Kansas.

Except for Kansas, the Corn Belt (north-central states) shows little change in number of lambs on feed. Ohio, Minnesota and Missouri are feeding a few more than last year. Indiana, North Dakota and Nebraska are feeding a few less.

The number on feed in Illinois on January 1 was estimated at 180,000 head, the same as one year before and 13 percent less than two years ago.

Some western states show moderate increases in lamb feeding. California, with 293,000 on feed, shows an increase of 17 percent.

Colorado, the biggest lamb-feeding state, reported 527,000 head on feed, 5 percent more than a year ago but 4 percent less than two years earlier. Nebraska and Iowa usually feed almost as many lambs as Colorado, sometimes more.

Lamb prices often rise during the winter months. Last year they went up $1.50 a hundred pounds from December to February. Frequently the largest price increase has come from February to March.

Last winter Choice lambs brought $24 to $25 in January, February and March. Two years ago, with as many lambs on feed as now, prices of Good to Choice lambs went up from $19.25 at the beginning of the year to $23.62 by the end of March.

(Continued)

At the beginning of this year, 1959, prices of Good and Choice lambs were around $18 at Chicago, $3 to $4 lower than last year and 50 cents to $1 lower than in 1957. Thus present prices seem to have ample room for improvement.

Lamb will have to sell in competition with cheaper pork this year than last, though pork will probably not be cheaper than in 1957. Beef might be a little cheaper than it was last year, though surely not so cheap as it was in the winter of 1957, when Choice steers averaged around $21 a hundred pounds.

The supply of broiler meat will be 10 to 20 percent larger than it was last winter and will offer a big price advantage over the most desirable cuts of lamb.

Total consumer demand (buying power) will be greater this winter than it was in either 1957 or 1958. However, consumers in the large eastern cities, where much of the lamb is consumed, were not hard hit by the recession, and they will not be much better off this winter than they were a year ago.

L. H. Simerl
Department of Agricultural Economics

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

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THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Monday, January 12, was clear and bright, the sun warming the air to shirt-sleeve weather. The thermometer registered well above 50 degrees. Bees were buzzing in tune with the day. Adding to the illusion of spring, the Station's cattle researchers drive a bull into a pasture with 20 yearling heifers.

We've been breeding beef cows in the spring of the year for so long that we had almost come to believe that cows were seasonal in their breeding. We had almost forgotten that the job can be done any time of the year. You see, we have been breeding for calves to start coming about mid-February. We've always assumed that this was the best time for beef calves to be dropped. Maybe our assumptions have been wrong. Many producers of feeder calves consider other dates best for making the most profit. We intend to find out.

The Plan

Here's what we plan to do: This group of 20 heifers is the first of 80 head to be bred, and they will start calving about mid-October, about the time most cattle producers are weaning calves. The remaining 60 head of heifers will be divided into three groups, to start calving on the following dates: December 1, January 15 and March 1, or about a 45-day interval between each group. We plan to keep each of the heifers on the calving schedule throughout her productive life in order to get a good measurement of cost and returns for the different calving dates.

Some Calves Will Be Creep-Fed

In addition, we plan to put half of the calves from each calving date group on a creep ration. These two simple management experiments, date of calving and creep feeding, should furnish valuable guides for feeder calf producers.

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Preliminary Creep Experiment

This past summer a creep ration of 45% ground ear corn, 45% ground oats and 10% soybean oil meal put 130 more pounds of gain on each calf. Every 100 pounds of extra gain put on by the creep cost about $18.00 in feed.

Since the creep feeding was done principally on fescue pastures, it serves to answer a common question: Can calves be profitably produced solely on fescue pastures? If so, how? The answer is important, because fescue can be grown more cheaply, can be maintained with greater ease and for a longer period and will save more soil than almost any other forage crop. A lot of folks like to grow it. And our experience with creep rations for calves on fescue pastures provides the answer: It can be done.

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1/14/59

farm Radio News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Hybrid Corn Test Reports Scheduled for Crop Performance Day

URBANA--The University of Illinois Crop Performance Day program on January 27 at Urbana will feature results of the lastest tests of new experimental and commercial hybrids. R. W. Jugenheimer, University corn breeder will report that, despite the progress already made in developing hybrid corn, some of their experiments point to newer improved hybrids that will stand better, yield more and resist disease more completely than ever before.

New hybrids carrying 30 percent more oil and 10 percent more protein have also been developed by the Illinois research workers. At the same time these hybrids yield just as much and stand as well as the standard types. They will benefit both the corn processor and the livestock feeder. Seed producers will be able to obtain foundation seed for these hybrids in 1959 so that farmers can buy seed for 1960 planting.

New and different methods of crossing and combining inbred lines to produce hybrid corn also offer prospects for corn with greater performance, more uniformity and better appearance in the future, Jugenheimer reports.

The 1958 tests of 479 commercial hybrids at 10 locations around the state will also be reported. Other features of the day's program will include reports on corn diseases, liquid and dry fertilizers, soil insecticides, weed control and new small grain and soybean varieties. The meeting is scheduled from 9:30 a.m. to 3:30 p.m. in 112 Gregory Hall on the campus.

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1/14/59

FOR IMMEDIATE RELEASE

John Strohm, Feature Speaker at Ag Industries Forum

URBANA--John Strohm, one of the world's foremost agricultural editors will speak at the University of Illinois Agricultural Industries Forum on Tuesday evening, January 27, on the subject, "The Challenge to American Businessmen of Developments in Foreign Countries."

Strohm was the first American correspondent to travel in Red China with State Department approval after the Korean War. He traveled 7,500 miles behind the Bamboo Curtain and took thousands of pictures. His writings in 800 newspapers and in the Reader's Digest have won him wide acclaim.

Strohm has traveled in 70 countries around the world. He was the first to travel widely behind the Iron Curtain after World War II. He was in Russia in 1946 and again in the summer of 1958 before his trip to China.

Strohm now lives in Woodstock, Illinois. He is a native of Marshall and graduated from the University of Illinois in 1935.

E. E. Broadbent, University agricultural economist and forum chairman, reports high interest in the 1 1/2-day Forum program on January 27-28. Accommodations for rooms and meals are still available, but Broadbent urges those who want to attend to send in their reservations now.

The forum will present an outstanding group of speakers emphasizing new techniques, new developments, and new markets for businessmen in the agricultural service industries. Special group sessions are also planned for those interested in dairy marketing, grain marketing, farm supplies and equipment, livestock marketing, poultry and egg marketing and food processing and distribution.

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FOR IMMEDIATE RELEASE

Name Four Delegates to National 4-H Conference

URBANA--Four outstanding Illinois 4-H Club members have been selected to represent the state's 67,000 4-H'ers at National 4-H Club Conference next June in Washington, D. C.

Illinois' 1959 delegates are Linda Lou Smith, 20, Macomb, McDonough county; Audrey Mascitti, 20, Steger, Cook county; Robert Bohlen, 19, Moweaqua, Shelby county; and Howard Werkheiser, 19, Kewanee, Henry county. They will spend a full week in citizenship training during their visit to the nation's capital.

The delegates will visit Congress and other governmental functions and will go on educational tours to historic places in and around Washington. They will hear some of the top officials in the government speak on the nature and history of our democratic system and will meet in discussion groups to summarize what they learn.

Selection to attend National Conference is the highest honor a 4-H Club member can achieve. Delegates are chosen by the state 4-H Club staff at the University of Illinois for their leadership ability, outstanding achievements in 4-H Club work and participation in project and community activities.

Mrs. JoAnn Sievers and O. F. Gaebe, members of the state 4-H staff, will accompany the Illinois delegation this year as state 4-H staff representatives and chaperons.

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FOR IMMEDIATE RELEASE

Plan Annual Illinois Feed and Nutrition Conference

URBANA--Retail feed dealers and all others interested in the feed industry are invited to attend the Seventh Annual Illinois Feed and Nutrition Conference on February 4 at the University of Illinois.

H. H. Draper, University animal nutritionist and chairman of the planning committee, says the conference is intended to give feed retailers latest details on new feeding techniques. The College of Agriculture departments of animal science and dairy science are co-sponsoring the event, along with the Illinois Feed Association. Draper expects about 350 to attend.

O. B. Ross, head of the animal science department, will preside at the morning session, which includes a welcome by T. S. Hamilton, associate director of the Illinois Experiment Station, and a discussion on the feeding value of high-moisture corn by A. L. Neumann, A. H. Jensen, K. E. Harshbarger and U. S. Garrigus, all UI staff members.

L. S. Jensen, Washington State College, will present the latest findings on factors affecting utilization of cereal grains by poultry. A. V. Nalbandov will report on hormones in feeding, and R. M. Forbes will relate findings on trace minerals. Both men are UI staff members.

G. W. Salisbury, head of the dairy science department, will preside at the afternoon session, featuring presentations on calf feeding programs by K. E. Gardner, UI dairy scientist; use of fats in feeds by B. S. Schweigert, American Meat Institute; and nutritional aspects of confinement swine feeding by S. W. Terrill, UI swine researcher. The program will end with a question-and-answer period.

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PBJ:cam
1/15/59

FOR IMMEDIATE RELEASE

Use Care in Handling Gasoline

URBANA--There'a a lot more to filling a tractor--and doing it safely--than just pouring in the fuel, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Whenever gasoline comes into contact with air, highly explosive vapors are found. A pint of gasoline mixed with air has the power of nearly 15 pounds of dynamite. Handling gasoline carelessly--overfilling the tank or spilling the fuel--increases the chances of a dangerous and costly explosion and fire.

Gasoline vapors are three times heavier than air, and they are invisible. This makes it important to have your tanks outside of the buildings so that fumes cannot collect in large quantities.

Always shut off your tractor engine before fueling, and take special care not to overfill the tank. If you do spill gasoline on the tractor, wait at least 10 minutes before starting the engine so that the gasoline will have time to evaporate.

Why let things burn that you worked so hard to earn?

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OLH:cm
1/15/59

THIS WEEK . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Last week in this column we reported that creep feeding of calves last summer on the Station was a paying business. This week we are reporting that the creep feeding of lambs was not a paying proposition. If this confuses you, we'd better hurry to explain that the pastures for the two classes of livestock were quite different. The calves were on straight fescue, while the lambs were on clover.

A Place for Creep Rations

Most of us will readily defend the practice of creep feeding lambs on grass pastures, on pastures with very little clover, on overstocked pastures or on pastures with little fertility or moisture to push up a constant supply of milk-producing forage. But where there is an abundance of clover or other legume in the sheep pasture, there is no advantage in creep feeding the lambs.

Creep Experiment

This past summer on the Station, two groups of ewes and their lambs (34 lambs in each group) were put on separate but identical pastures containing a luxurient growth of ladino clover, red clover, sweet clover, lespedeza and orchard grass. Clovers made up a high percentage of the ground cover. The lambs on one pasture had access to a creep feeder containing a ration of 45 parts corn, 45 parts oats and 10 parts soybean oil meal. The other group of lambs had to make it from the pasture alone.

Results

The lambs with the creep were eating about 2/3 pound of grain per head per day. Consumption was not high mainly because they didn't need the grain. The ewes were milking well, and in addition the lambs were stuffing on clover. We can safely

-more-

say the lambs didn't need the creep, because the lot without the creep gained faster than the creep-fed lambs at all periods during the experiment until marketed. Average daily gain for the creep-fed lambs was 0.33 pound, while that for the non-creep lambs was 0.38 pound.

The Cost

The feed cost for creep feeding was not high. The lambs consumed about 1,400 pounds of feed, which cost about $36.00. To make back the creep cost, the lambs would have needed to sell for over a dollar more per head than their mates without creep. This they did not do. The lambs in the two lots were marketed at about the same time, at about the same grade, and at about the same price. We can say this: Creep-feeding lambs on top-notch clover pastures will give you plenty of exercise. If you need the exercise, figure its cost at about a dollar for each lamb being fed.

HAC:cm
1/22/59

ILLINOIS FARMERS' OUTLOOK LETTER

"MORE" ON THE POULTRY OUTLOOK

URBANA, ILLINOIS JAN. 28, 1959

Prices of eggs have held up better this winter than might have been expected. Bad weather apparently held down production and marketings.

But climbing costs of feed have trimmed profits of egg producers. And profits may be shaved further in coming weeks and months as production increases.

On January 1 the nation's laying flock included 326 million hens, 5 million more than the year before. In addition, there were 36 million pullets not yet of laying age, also 5 million more than last year. Thus, the number of both hens and pullets totoled 362 million, about 3 percent more than the year before.

Rate of lay was the same as last year, but it is expected to rise above year-before levels during the spring months. (The rate of lay has increased almost every year for many years.)

Declining prices for eggs and continued high prices for feed will make for shorter profits from now through spring than in 1958. Farmers usually respond to this situation by buying fewer replacement chicks. The big-scale poultrymen of today do not respond so much as did farmers of several years ago. But enough of them do respond to make a fairly regular two-year cycle in egg production and prices.

The egg production year begins and ends in late summer, when old hens "lay off" and before pullets come into production. Last year, 1957-58, was a good year. This year, 1958-59, is supposed to be a poor one. If it is, the next egg production year, beginning next fall, should be better.

Broilers. Recent prices for broilers were lower and feed costs higher than those of the year before. Few, if any, producers were making profits, but they continued to take 12 to 15 percent more chicks than last year. Prices went up a little after the holidays, but profits from growing the birds will remain close to 0. Still, the industry uses lots of corn and soybean meal, provides much employment and supplies our population with tasty, nutritious and economical food.

(Continued)

Turkey production to increase. United States turkey growers plan to raise 5 percent more turkeys in 1959 than they raised last year. That is according to intentions reported to the USDA in a recent survey.

Other signs also point to increased production. Last October, farmers producing turkey hatching eggs reported intentions to have 11 percent more breeders. And by December 1, 9 percent more breeder turkeys had been tested for pullorum.

Are some Illinois producers being squeezed out? They reported that they intended to cut production by 2 percent this year.

L. H. Simerl
Department of Agricultural Economics

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

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for dailies

Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Food Processing and Distribution Sessions
Planned for Ag Industries Forum

URBANA--Special sessions for those interested in food processing and distribution have been scheduled for the Agricultural Industries Forum at the University of Illinois on January 27-28. R. A. Kelly, chairman of these sessions, reports that this program has been planned to interest all businessmen engaged in any phase of food processing or distribution.

The Tuesday afternoon session will focus on population. University rural sociologist C. L. Folse will report on "Trends, Shifts and Problems in Population." Joseph A. Russell, Jerome D. Fellman and Howard G. Roepke from the department of geography will discuss "Farms and the Future City." Val Bauman, vice-president of National Tea Company, Chicago, will report on "Distribution Problems Resulting From Growth."

During the Wednesday morning session, E. E. Hargraves, vice-president, Jewel Tea Company, Chicago, will discuss "Changes in Operations Resulting From Labor Productivity." Louis Ratzesberger, Jr.,

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President, Illinois Canning Company, Hoopeston, will report on "New Products and Changes in Eating Habits."

Those attending the food distribution and food processing sessions will also find the general session programs of interest. On Tuesday morning Glenn Salisbury, head of the University's department of dairy science, will lead off with "New Horizons in Food and Agricultural Science." Harold G. Halcrow, head of the department of agricultural economics, will speak on "The Challenge of the Farm of Tomorrow."

Henry King, managing director of the Super Market Institute, Chicago, will report on "The Challenge of New Agricultural Horizons to Food and Agricultural Service Industries."

Wednesday morning general session forum guests will hear J. D. Sykes, vice-president, Ralston Purina Company, St. Louis, speak on "Marketing Manpower." At the closing luncheon Wednesday noon, Thomas Henry Coulter, executive secretary of the Chicago Association of Commerce, will speak on "How Industry Accepts the Challenge of Change."

A complete program and reservation forms can be obtained from Harold G. Halcrow, head, department of agricultural economics, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

Farm Managers and Appraisers Plan Annual Conference

URBANA--Planning ahead and getting the job done will be the major themes of discussion when the Illinois Society of Farm Managers and Rural Appraisers convenes for its annual meeting at the University of Illinois on January 29-30.

Donald G. Smith and D. F. Wilken, members of the University farm management staff and program chairmen, report that the discussion topics will include minimum tillage; weed sprays; buying, selling and feeding cattle; accounting; research for farm appraisals; hog production systems; soil maps for tax assessments; yield potentials of Illinois soils; tax assessment inequalities; lease adjustments; and farm outlook.

During the closing luncheon Friday noon, January 30, Maxim Cohen, general manager of the Chicago Regional Port District, will speak on the "Economic Impact of the St. Lawrence Seaway on Illinois Agriculture." At this time the society will also present its 1959 award for outstanding service to Illinois agriculture.

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1/19/59
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FOR IMMEDIATE RELEASE

Announce 1959 4-H Key Club Award Program

URBANA--Plans to continue and expand the Illinois 4-H Key Club, an organization of more than 1,000 top 4-H members from every county in the state, are now complete.

Advisers Erma Cottingham and O. F. Gaebe, representing agricultural and home economics 4-H Club work at the University of Illinois, and Robert Anderson, representing the Cities Service Oil Company, announce that top 4-H members will again compete for Key honors in 1959.

The Illinois Key Club has been in operation since 1954. The Extension Service of the University of Illinois College of Agriculture and the Cities Service Oil Company are joint sponsors of the program.

Lifetime membership in the organization is possible only as an award for outstanding 4-H work over a period of years. Besides being made available to active 4-H members, Key Club membership is also given as an honor to selected former members and contributors to the Illinois 4-H program.

Highlighting the 1959 Key Club activities is the annual meeting, already set for next June 28 at 4-H Memorial Camp near Monticello. More than 200 Key Club members attended the 1958 annual meeting, also held at Memorial Camp.

The Key Club selected 144 4-H girls and 122 boys for membership during 1958. Of special interest are pilot county Key Club organizations which are beginning to function as county membership grows. These groups help with local and county 4-H programs and activities.

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PBJ:cm
1/19/59
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FOR IMMEDIATE RELEASE

Spray School to Feature Many Outstanding Topics

URBANA--Many outstanding topics in the field of agricultural chemicals will be presented during the Illinois Custom Spray Operators' Training School.

Dates for the school are January 28 and 29. All sessions will meet in the Illini Union on the University of Illinois campus.

Several subjects to be discussed on Wednesday morning's program (January 28) are liquid fertilizers; new developments in brush control; fungicides; topping corn; and effects of biting flies on beef and milk production.

Afternoon topics include summary of Japanese beetle eradication studies; crop damage from drift and volatility of herbicides; and pre-emergence chemicals for soybeans and corn.

Among the topics scheduled for Thursday morning are control of Hessian fly with insecticides; weed control in farm ponds; and granular versus liquid herbicides.

Although the spray school does not open officially until January 28, the Agricultural Spraying Association and the Illinois Aerial Applicators' Association will meet the preceding day, January 27, at 3:00 p.m. These are the annual business meetings of these associations. Those interested in either joining or helping the aerial and ground applicators' association are invited to attend.

An informal coffee hour for those who arrive early will be held on January 27 from 7:30 to 9:30 p.m. in the Illini Union.

Chairman of the spray school is H. B. Petty, extension entomologist. For more information write to Petty at 280 Natural Resources Building, University of Illinois, Urbana.

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PAC:cm
1/19/59

FOR IMMEDIATE RELEASE

Prevent Pneumonia in Hogs With Good Management

URBANA--Respiratory diseases of swine are always a serious threat on Illinois farms in winter, according to Dr. J. R. Pickard, University of Illinois extension veterinarian.

Various types of pneumonia are among the most serious respiratory diseases in causing losses. Swine are susceptible to several types of pneumonia, including viral, bacterial, parasitic and mechanical. While the disease may appear at other times of the year, it is most common during the cold months, says Dr. Pickard.

Proper housing is one of the important safeguards in preventing swine pneumonias. Poorly ventilated, drafty or wet quarters contribute to pneumonia outbreaks. A hog likes to sleep in comfort just as its owner does, says Dr. Pickard.

If given a choice, no hog would reserve sleeping quarters in a cold, wet, drafty building in wintertime. He prefers to "snooze" in a properly ventilated house, bedded down with plenty of deep, dry litter. Comfortable swine accommodations mean less disturbance in sleep, less floor walking, less piling-up and greater protection against pneumonia.

Baby pigs require warm heated quarters during the winter. Use of heat lamps or heat pads will insure pig comfort, better growth response and less trouble with pneumonia, according to Dr. Pickard.

Swine pneumonia is usually associated with stress and loss of vitality. It often follows exposure to severe weather because of

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inadequate housing. A pig with pneumonia usually has chills and fever, accompanied by difficult and rapid breathing.

Pigs need special care to avoid pneumonia if their resistance has been lowered by other diseases, such as necrotic enteritis, influenza or atrophic rhinitis.

Pneumonia may be prevented during the farrowing season largely by using proper sanitary measures. Farrowing pens should be clean, well ventilated and free from drafts. Artificial heat is recommended for baby pigs, especially those farrowed early in the spring.

Good management and sanitation practices are important in preventing swine pneumonias. But whatever the type of pneumonia, prompt diagnosis by a veterinarian is the first step in successful treatment. In view of the tremendous economic loss caused by these respiratory diseases, Dr. Pickard urges swine growers to take all necessary measures to prevent them.

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1/19/59

for dailies

Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE TUESDAY, JANUARY 27, 1959

High Costs Bring About Many Farm Changes

URBANA--Many Illinois farmers are running at a fast pace to keep their income high enough to stay in business, visitors at the University of Illinois Agricultural Industries Forum were told this week.

Comparing the records of 210 Illinois farmers between 1951 and 1957, D. F. Wilken reported that while the farm price index dropped 17 percent during these years, total expenses of these farmers climbed 33 percent. But to stay in business, they kept their gross income about the same in 1957 as it had been six years earlier.

To do this, they produced 15 percent more milk per cow, 18 percent more eggs per hen, 95 percent more pounds of beef in feeding operations, 25 percent more pork and 34 percent more corn.

Rising costs leave farmers with much less margin to cover errors of management. Even small errors that increase cost or cut value of production will leave a farmer with less income to cover his operating costs and pay living expenses.

With these changing relationships between costs and income, farmers are striving to get their money's worth in all purchases,

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Wilken pointed out. They are buying larger tractors that will pull bigger machines. They are operating larger farms and producing higher per acre yields. These changes enable them to produce more efficiently and cut their costs per bushel or pound of production.

Farmers are now using many more barn cleaners, silo unloaders, pipeline milking units and mechanized trucks, wagons and livestock feeders than they used a few years ago.

Higher analysis fertilizer use is also increasing. Liquid fertilizers are gaining in popularity because they help to reduce labor and costs. Some farmers are mixing their own livestock rations. Sales of feed additives and premixes are increasing.

Farm building remodeling plans are being designed to provide for "material flow of feed grains." High-moisture corn storage, grain banks, auger feed bunks, automatic feed grinders and picker-shellers are here to stay, Wilken emphasized. Handling baled or chopped hay remains one of the biggest bottlenecks to completely mechanizing livestock feeding operations, he stated.

Although Illinois farmers have mechanized their operations to a great extent, many opportunities still exist for reducing costs and labor by using improved methods and machines, Wilken pointed out. Businessmen who understand the farmers' problems can render a real service by helping them make the right decisions.

Although these Illinois record-keeping farmers may not be typical of all farmers, they do represent most commercial farmers serviced by our agricultural industries.

The average Illinois farm in 1957 provided a labor market for the farm operator and his family and yielded a moderate return on money invested. But higher costs and lower farm prices practically eliminated management profit for the average farmer, Wilken concluded.

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1/21/59

FOR IMMEDIATE RELEASE

UI Agricultural Short Course Still Accepting Applications

URBANA--University of Illinois College of Agriculture officials have announced that they will continue to accept applications this week for the Agricultural Short Course.

Warren Wessels, short course director, reports that so far about 70 persons have enrolled. He adds that there are facilities for up to 100 students.

Dates for this eighth annual winter agricultural short course are February 2 to March 13, 1959. Students who attend have an opportunity to learn about new developments on the farm and in the farm home. Students may also enjoy the cultural, social and athletic events on the campus and in the community.

Wessels estimates that average expenses for the six-week short course range between $190 and $230. This amount does not include costs for travel, clothing or recreation. Housing and meals are available for most students in University residence halls.

Any person 18 years of age or older may enroll. For more information, write to Short Course Supervisor, 104 Mumford Hall, College of Agriculture, Urbana, Illinois. Or contact your county farm adviser.

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PAC:cm
1/21/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Top Hybrids of 1958 Named at Crop Performance Day

URBANA--The top-performing commercial corn hybrids in 1958 tests conducted by the University of Illinois department of agronomy were announced today at Crop Performance Day.

These tests were conducted on 479 hybrids grown on 10 fields over the state. Earl Leng, University corn breeder supervising the tests, points out that small differences found in any one year's tests do not necessarily mean that one hybrid is superior to another. High performance for several years is a more reliable indicator.

The following hybrids produced highest yields from 1954 to 1958:

Northern Illinois at DeKalb: P.A.G. 234, Frey 410, Bear OK-414, P.A.G. 277, Hulting 240, Producers 326.

West north-central at Galesburg: Schwenk S-34, Pioneer 329, Pioneer 313B, Moews 520, Holmes 39, Funk's G.95.

East central at Urbana: Appl A-159, Holmes 39, Canterbury 420, Frey 692, Pioneer 6727, Funk's G-95A.

Southern at Brownstown: Producers 13-1, Canterbury 420, Tiemann T-78, Funk's G-91, Illinois 1511, and Canterbury 400.

Extreme southern Illinois: Stull 400 (white), P.A.G. 631 (white), Ainsworth S-14-A, DeKalb 925W, Whisnand 851, Funk's G-704.

These hybrids produced the highest yields from 1956 to 1958:

Northern Illinois: Pioneer 1091, Hulting 242, Pioneer 346, Moews 48, Wyckoff's W-20, Huebsch H-44.

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West north-central: Munson M-15, Schwenk S-34, Moews 520, Pioneer 6727, Pioneer 329, DeKalb 820.

East north-central at Ashkum: DeKalb 805, Pioneer 301B, Tiemann T-68, DeKalb 837, Hulting 242, Troyer L-14T.

East central: Bear OK-96, Moews 524A, Illinois 1893 (Station) Griffith 125-2, Steigelmeier Hi-B-Jack S-600, Frey 692.

West south-central at Greenfield: Pocklington P-78A, Ainsworth X-14-A, Pioneer 301B, Pioneer 6727, U. S. 13.

Extreme southern Illinois: Stull 400 (white), DeKalb 1023, DeKalb 1024, Ainsworth S-14-A, P.A.G. 631 (white), Illinois 2214 (white).

For the first time in 1957, the Illinois agronomists carried out tests at three other locations. The top six hybrids at these fields for the past two years were:

Extreme northern Illinois at Woodstock: Moews 500A, Pioneer 1091, Illinois 1277, P.A.G. Exp. 8884, P.A.G. 323, and Moews 14DR.

West central at Bowen: Whisnand 852, Pioneer 6727, DeKalb 3x1, Bear OK-821, Plymouth Hybrids P-97(Bruns)

Central Illinois at Stanford: Bear Unicorn X600, Moews 524, Bear OK-24, Van Horn VH-95-1, Steigelmeier Hi-B-Jack S-396, and Pocklington P-70.

All hybrids tested averaged 101.4 bushels an acre, about the same as in 1957. But at Galesburg the average yield of 134 bushels topped all previous records for any field in the commercial hybrid testing program. Some hybrids showed definitely better standing ability than others.

Complete yields and other performance features of all hybrids tested can be obtained from Bulletin 635, "1958 Commercial Illinois Corn Tests," available from the College of Agriculture, Urbana.

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1/22/59

FOR IMMEDIATE RELEASE

No Farm and Home Week This Year; Farm and Home Festival Set for April 2-4

URBANA--Icy roads, snow drifts and typical zero weather need not concern Illinois farmers and homemakers who used to attend Farm and Home Week at the University during the last week of January. For again this year the College of Agriculture is planning the Farm and Home Festival to replace the old Farm and Home Week program.

This year's festival, scheduled for April 2, 3 and 4, will feature the theme, "Research for Tomorrow." More than 100 exciting exhibits in the areas of crops and soils, livestock, mechanization, food industries, family living and educational services are being planned.

In addition, a speaking program will feature the latest high-interest topics in agricultural and home economics subjects. A popular Town and Country Art Show will present the top 200 paintings submitted by amateur artists from all over the state. A Town and Country Talent Show is also scheduled.

Saturday, April 4, is Ag Student Guest Day and Home Economics Hospitality Day for all Illinois high school students.

Festival Chairman W. N. Thompson reports that this year's plans should make the 1959 festival even more successful than the one in 1958. More than 15,000 people attended the first festival last year.

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1/22/59

FOR IMMEDIATE RELEASE

So That You and Your Friends Will Not Be Next

URBANA--The price that American farm people are paying for carelessness is getting higher and higher. Thousands of pages of statistics have been printed on accidents. But they are like the national debt: they are too astounding for most of us to comprehend.

You don't need all of these figures to warn you against accidents, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture. You probably know someone, perhaps a friend or neighbor, who got tangled up in a machine, fell off a roof or was gored by a bull. Or was it a fire or an automobile accident?

Accidents don't just happen. They are caused. And almost every time it's the result of someone's carelessness. Accept this fact, and accept your responsibility to prevent accidents. Most important in the safety of you and your family, friends and neighbors is your attitude toward safety.

Accidents can happen only when one of two conditions exist: when we tolerate an unsafe condition or we commit an unsafe act.

To save your life, you can't beat safety.

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OLH:cam
1/22/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Economist Urges Businessmen to Study Farming Trends

URBANA--A University of Illinois agricultural economist today urged all businessmen serving agriculture to study the production trends in their areas as a guide to future plans. Speaking before the Agricultural Industries Forum, R. J. Mutti said that local trends may not always follow the national trend in livestock or crop production.

As a guide to businessmen serving farmers, Mutti pointed out that where feed crop production has increased more than average, cattle and hog expansion usually follows. For example, corn acreage in northwestern Illinois has increased, while the state acreage has declined. Livestock and dairy production has expanded accordingly. Where soybean and wheat acreage has increased most, livestock numbers have expanded the least.

As market outlets for farm products have changed, crop and livestock production in an area has been definitely affected, he emphasized.

Mutti estimated these future requirements for agricultural products during the next 15 to 20 years:

Requirements for meats and certain fruits and vegetables are likely to run ahead of the expected population increase, he pointed out The need for dairy and poultry products is expected to go up about as much as population.

On the other hand, domestic need for feed grains in the next 20 years is likely to increase considerably less than population. The

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reason is the more efficient use of feed by livestock and the current high level of crop production.

Looking at the foreign picture, Mutti reported that export opportunities may not be so great as they were in the record year of 1956 if we have no special government export programs. However, feed grain, fats and oils exports could increase 50 percent by 1975 if sold at competitive world market prices.

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1/22/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE WEDNESDAY A.M., JANUARY 28, 1959

Strohm: "Red China Hates America; Not Afraid of War; More Communistic Than Russia

URBANA--World-traveling farm editor John Strohm told an Ag Industries Conference audience at the University of Illinois last night that Red China has every intention of taking over the offshore territories of Formosa, Quemoy and Matsu some day--by negotiation if possible, or by war if necessary.

Strohm, who recently returned from Red China, said he doubted that there would be war over these offshore territories "this year."

"Right now the army is too busy," he said..."too busy building dams, digging irrigation ditches and working on the railroad. China did not impress me as a country preparing for war."

At the same time, Strohm told his audience that the Red Chinese leaders do not seem to be as concerned about the tragic aspects of a possible war as are the leaders of other major foreign countries, including Russia. They see World War III as the possible death of capitalism and the triumph of socialism around the world.

The regime in Red China, according to Strohm, is using an unparalleled "Hate America Campaign" to help push a frenzied drive for increased agricultural and industrial production.

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In agriculture, China faces the needs of a skyrocketing population. China's present population exceeds 640 million people, and there are 40,000 new mouths to feed every day. The total may be more than a billion by 1980.

To meet this need for food, China is pushing agricultural production and claiming fantastic increases in crop yields, almost triple the yields of two years ago. These increased yields, they say, result from four things: More irrigation, more double-cropping, more fertilizer and deep plowing.

In industry, China is trying to "leapfrog to industrial power on a bizarre mixture of raw muscle, crazy brainstorming and solid engineering," Strohm said.

"China proudly boasts that she manufactures 'liberation' lorries, but the bulk of her commerce moves on backs of men, or on two-wheeled cars pulled by teams of human horses.

"I saw one giant crane with a five-yard bite at the industrial exhibition, but I saw tens of thousands of human ants building dams, digging irrigation canals with hoes and moving earth in baskets carried on shoulder poles.

"I also saw them doing some crazy things like making wooden automobiles, and primitive ones like smelting iron ore in tiny backyard furnaces after first crushing it with little hammers a chunk at a time."

Strohm emphasized that Peking should be nominated "as the new capital of communism."

"Russia seems to be backing off from pure Communism," he said. "She is putting more emphasis on profit and incentive of private ownership to get production. This is heresy in China. China is rushing towards communism at a pace that makes Russia look like she's standing still."

The Chinese, Strohm insists, are not Russian stooges. Rather, they are almost intoxicated with the thrill of running their own show.

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1/22/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Controversy Centers On
Milk "Mark-Up Law"

URBANA--Possibility of an Illinois minimum "mark-up law" for milk and milk products was both attacked and defended by economists and a dairy plant manager at the University of Illinois Agricultural Industries Forum today.

Such a law would require a retail food store to charge a certain percent for milk over what the dairy charges the store. Thus, if the dairy charged a store 20 cents a quart and the minimum mark-up was eight percent, the store would have to charge at least 21.5 cents a quart.

Two economists, Roland Bartlett, University of Illinois dairy marketing professor, and L. K. Wallace, dairy marketing economist for the Illinois Agricultural Association, both questioned the value of a mark-up law during a panel discussion on the topic.

Bartlett stated that legislation now exists to prevent the abuse of the "loss leader" sales mechanism in stores--and thus eliminates one of the needs for the mark-up law. By using a "loss leader," stores lower prices of one product to increase store traffic and make up the loss on other products.

Bartlett also said that part of the store milk-pricing problem centered around the introduction of new low-cost methods of distributing milk in competition with conventional methods.

But, he added, "New technology that lowers distribution costs is in the public interest, since it encourages higher per capita

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sales and consumption of milk more nearly in line with that recommended by nutritionists."

Bartlett also made two other points:

(1) Assuming that the abuse of loss leaders is eliminated, a mark-up law would be of little or no value to a high-cost distributor. This would put him at a competitive disadvantage.

(2) Before new dairy legislation is passed, it would seem wise to provide adequate funds for enforcing dairy legislation already on the statutes.

"It seems to me that such a device might create as many problems as it would solve," Wallace said, "because I cannot completely disassociate such procedures from retail price-fixing in all respects."

He added that there is merit in allowing a handler to determine his own margin or mark-up, but "requiring him to maintain uniform or comparable mark-ups in all areas where he sells milk."

The two proponents of a mark-up law--Clyde Fruit, manager of the Edwardsville (Illinois) Milk Producers Association, and W. H. Alexander, Louisiana State University agricultural economist--cited several advantages.

Fruit, a small dairy plant manager, maintained that "it should not be necessary for us to go to a state legislature to get relief by statute from the unethical trade practices of the large, financially powerful dairy companies."

But later Fruit said, "I hope that the current Illinois legislature passes a Fair Trade Practices Act to regulate sales of dairy products. It will not cure all of the industry's present evils,

but will help to protect the public from future monopoly in the dairy industry with all of its abuses...."

In support of his argument, Fruit cited the change from small dairies in small markets to large dairies supplying wide areas. "Their entry into the new market areas is nearly always through large retail supermarkets with below-cost prices, giveaways or other unscrupulous gimmicks."

Although praising federal fair trade statutes, he concluded that only state laws could regulate against "bad practices on an interstate level." Bad practices to which he referred were setting prices below those at which the seller ordinarily sells his products, selling below cost, furnishing equipment, painting store-fronts and giving secret rebates and allowances.

Alexander claimed that the law would eliminate the use of milk as a loss leader--important because the practice "provides unfair competition between grocery stores and milk handlers in the sale of milk."

It would also prevent "extreme price-cutting" of milk among grocery stores and milk distributors, he added, and thus stabilize market conditions. It would also provide "ample roomfor competition among firms," and improve producer-handler-consumer relationships.

Tomorrow the dairy marketing session of the forum concludes with discussions on federal milk orders by dairy industry representatives economists and legal experts.

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RLN:cm
1/23/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Keep Consumer Favor With More Lean Meat, Packer Urges

URBANA--Hog producers must step up their program to produce hogs with more lean meat and less fat if they are to keep their share of the market, a major meat-packing executive declared here today.

Speaking before the Agricultural Industries Forum, R. H. Borchers, executive vice-president of Armour and Company, emphasized that the public does not want fat pork. The packing industry made a small step forward when it set up specifications to trim closer and leave less fat.

This step was in the right direction but is far from the final answer, he stated. Progress has been slow, even though many hog raisers with the help of agricultural colleges and industry have proved that meat-type hogs can be raised profitably.

"We are convinced that we have a place in the agricultural picture only if we can produce high-quality products that are well accepted by the consumer," Borchers declared. He reported that his company has established a strong quality-control program and consumers are showing increasing acceptance of its products.

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1/23/59

FOR RELEASE WEDNESDAY, JANUARY 28, 1959

New Products and Changes in Eating Habits Reported at Forum

URBANA--An American family that two generations ago spent 50 percent of its income on foods, eats better today on 22 percent.

Louis Ratzesberger, Jr., president of the Illinois Canning Company at Hoopeston, made this observation today at the Agricultural Industries Forum held at the University of Illinois.

He pointed to studies made by Grocery Manufacturers of Americ which show that if people were content to buy only the same types and quantities of food per person that they bought before World War II, they could buy the equivalent at today's prices for only 16 percent of their budgets.

The difference between that and the 25 percent they actually spend represents the additional values they want that the food industry has provided.

One reason for the increased demand for easy-to-prepare foods is the increased number of homemakers working outside the home. Today one of every three persons employed is a woman.

American homemakers feel that convenience foods not only save them time, but also help them serve better balanced meals. Others comment on the uniformity of processing and the fact that they know in advance exactly how many servings will be in a can or package and that the contents will be fresh and appetizing.

The question is often raised whether convenience foods are more expensive than other foods because of the built-in maid service features.

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According to Ratzesberger, the price of many convenience foods is lower than that of fresh or raw foods or of the cost of ingredients that make up the products.

For example, devil's food cake made from prepared mix, plus two eggs, cost 41 cents. Made "from scratch" it costs 53 cents. A pint and a half of orange juice made from frozen concentrate costs about half as much as juice squeezed at home from fresh oranges.

Ratzesberger said the cost of food has gone up far less than the over-all "cost-of-living" in recent years. Grocery store food prices have advanced less than 2 percent since August 1952, when food prices reached their previous all-time peak.

In mentioning new products, Ratzesberger said that canners were developing a dehydrated tomato juice product. When reconstituted, it will be the tomato juice to which people are accustomed. But it will probably be less expensive because of lower shipping cost for the waterless product and less cost for the container.

Ratzesberger said that in recent years the packaged dry bean business has all but disappeard in favor of canned beans. Today canned beans are packed from dried, soaked beans. Canned yams and sweet potatoes are gradually replacing the fresh sweet potatoes in grocery stores too.

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MVB:cm
1/22/59

FOR RELEASE WEDNESDAY, JANUARY 28, 1959

Simazine Results Not So Spectacular in 1958

URBANA--Simazine, one of the most highly promising new weed killers, failed to live up it its expectations in 1958.

This fact was revealed by Fred W. Slife at the Illinois Custom Spray Operators' Training School which is meeting this week in Urbana. Slife is a University of Illinois crops production researcher who specializes in weed control.

In 1956 and 1957, Simazine gave almost perfect results in controlling weeds in cornfields. But in 1958 it worked only about 50 percent of the time.

The two main reasons for its poor showing were lack of rainfall and insufficient application rates.

In central Illinois, showers during May were variable. Consequently Simazine worked a higher percentage of the time in the central area than in northern Illinois, which was extremely dry. In the southern third of the state, general rains that occurred soon after Simazine was applied made it highly effective. Results in the southern area compared favorably with 1957 results.

Indications are that if rain does not fall on Simazine-treated plots within two to three weeks, the chemical generally fails to give good control.

The key to Simazine's performance, according to Slife, is its solubility. If it were 50 percent soluble instead of less than one percent, dry periods after application would not hinder its effectiveness. When it did rain, enough chemical would then dissolve to kill weeds, even though they were 8 to 10 inches tall.

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Rate-of-application studies with Simazine show that three pounds of active ingredient should be used on most soils in the northern two-thirds of Illinois. Two pounds seem sufficient for older soils in the southern one-third. In areas where the soil is primarily sand, one pound of active ingredient has given good results.

Simazine effectively controls a wide variety of cornfield weeds. At the same time, it does not adversely affect the corn. So, even though the chemical made a poor showing in 1958, Slife feels that it will still become an important weed killer.

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PAC:cm
1/23/59

FOR RELEASE WEDNESDAY, JANUARY 28, 1959

2,4-D Controls Roadside Weeds Best

URBANA--For controlling roadside weeds, 2,4-D has given the best results, E. P. Sylwester said today before the Illinois Custom Spray Operators' Training School in Urbana.

Sylwester, an Iowa State College plant pathologist and extension botanist, added that this 2,4-D has been in ester form.

He also stated that roadside weeds should be sprayed when they are growing--not when they're old and tough. Often in beginning control programs it's necessary to spray roadsides and fencerows twice a year. After that, one well-timed application each year will be sufficient.

For killing brush, Gunderson said that mixtures of 2,4-D and 2,4,5-T are used more extensively than 2,4,5-T alone. With repeated treatment, few trees and brush could survive. However, where resistant species occur, 2,4,5-T may give better results.

Spraying brush over ten feet high creates an eyesore, Gunderson said. Instead he advised cutting down the tall brush and then spraying the regrowth and stumps.

Stump treatments are best when made before regrowth occurs, preferably at cutting time. Stumps, when dry, should be sprayed to runoff, concentrating on the bark.

Sylwester further reported that soil sterilants offer additional savings to authorities in charge of maintenance. Their use around bridge and culvert abutments, sign posts and poles adds both to safety and to highway appearance.

In summarizing, Sylwester emphasized that brush and weed control on highways will pay big dividends to everyone through better vision and more enjoyable scenery.

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FOR RELEASE WEDNESDAY, JANUARY 28, 1959

Discuss New Weed Control Chemicals in Legumes

URBANA--Three new weed control chemicals for legume crops, 2,4-DB, dalapon and EPTC, were revealed today by K. P. Buchholtz before the Illinois Custom Spray Operators' Training School in Urbana.

Buchholtz, a University of Wisconsin plant pathologist, said that these chemicals are necessary for weed control in forage crops, as tillage cannot be used.

2,4-DB is similar to 2,4-D. But most forage legumes are more tolerant of 2,4-DB than of 2,4-D. As a result, 2,4-DB will control many broad-leaved weeds in stands of alfalfa, birdsfoot trefoil, red clover, alsike clover and ladino clover.

Because 2,4-DB is not so effective as 2,4-D on mature weeds, it should be applied early in the season when weeds are small.

At the present time this new chemical can be used only on forages grown for seed. Until a label recommending its use on forage legumes is prepared, it cannot be used on these crops.

Dalapon, reported Buchholtz, has possibilities for controlling grassy weeds in alfalfa, sweet clover and birdsfoot trefoil. But because this chemical leaves a significant residue when applied to established forage, its chances for becoming recommended are slim. There is a possibility, however, that it may eventually be used on seedling legumes, as residues will seldom persist into forage harvest if the material is applied in the seedling stage.

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EPTC is applied as a soil treatment, according to Buchholtz. Since it must be incorporated into the soil surface, it is applied as a pre-planting treatment. Applications of 3 pounds per acre have usually given excellent control of annual grassy weeds and fair to good control of broad-leaved weeds. However, seedlings of forage grasses cannot be established in areas treated with EPTC.

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1/23/59

for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE TUESDAY, JANUARY 27, 1959

Calls for Business to Keep Pace With Agriculture

URBANA--Business and industry serving agriculture were called upon today to keep pace with the constantly expanding output from American farms.

Speaking before the opening session of the Agricultural Industries Forum, Harold G. Halcrow, head of the University of Illinois department of agricultural economics, asserted that the American public could look forward to production of the necessary raw products to further improve their diets. But, to take full advantage of farmers' expanding production efforts, Halcrow called on agricultural industries to move this volume of products efficiently from producer to consumer.

He also called for improvements in marketing and processing. Many industries are working with obsolete plants and equipment, or they are the wrong size, are not located properly or have poor inventory control, he pointed out. Expanded research and educational facilities could help to develop the most efficient types of plants and businesses to do this job. New products and new processes must be considered in planning for the future, he emphasized.

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"Research on market structure and related areas has lagged far behind agricultural production research. As a result, farm income has been depressed, farm surpluses have built up and the policies that have been followed have been better adapted to a depression than to a booming, expanding economy," Halcrow stated.

Businessmen were told that agriculture is a growth industry. Even though net farm incomes are not likely to increase, the size of farms will expand and each farm operator will spend more for production items. The need for plant foods, pesticides, herbicides and feeds will "expand spectacularly."

Halcrow also called for closer cooperation between educational and research groups and agricultural industry leaders. And, despite the rapid developments and changes taking place in our national economy, he urged that everyone keep in mind the human values upon which our democratic society is based.

Efficiency will mean little to us if we fail to preserve liberty, provide opportunity and develop a desirable society, he concluded.

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1/26/59

FOR RELEASE FRIDAY, JANUARY 30, 1959

Farm Managers Present Service Award to Shuman

URBANA--The Illinois Society of Farm Managers and Rural Appraisers today presented their annual service award to Charles B. Shuman, president of the American Farm Bureau Federation. Shuman was honored during their annual meeting on the University of Illinois campus this week.

The plaque presented to Shuman was inscribed: "In recognition of his distinquished service in leadership of the farm people of the state and nation, his keen understanding of world problems, and his many contributions to better living."

Shuman has been AFBF president since December 1954. He was president of the Illinois Agricultural Association for the preceding nine years.

Shuman graduated from the University of Illinois College of Agriculture in 1928 and received a master's degree in 1929. Since that time he has operated a farm near Sullivan and has been active in farm bureau, school and church activities.

The farm managers and appraisers present this award each year to a person who has given outstanding service to Illinois agriculture.

During the closing luncheon, Maxim Cohen, general manager of the Chicago Regional Port District, spoke on the "Economic Impact of the St. Lawrence Seaway on Illinois Agriculture."

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1/26/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Illinois Egg Producers Face Strong Competition; Broilers Move South

URBANA--Although Illinois has maintained its position among the top five egg-producing states during the past 20 years, producers face strong competition in holding this position.

Speaking before a poultry marketing session at the Agricultural Industries Forum this week, J. R. Roush, University of Illinois poultry marketing economist, pointed out that Illinois egg producers are fortunate to have the Chicago market close by. But he warned that producers in other states also look to this outlet for their eggs.

To hold their market position, Roush urged Illinois poultrymen to further increase the output of each laying hen, lower feed costs per dozen eggs produced, and cut labor costs by increasing flock size and mechanization of operations.

The economist cited Illinois cost research showing that flocks of 1,150 hens or more were producing eggs for about 10 cents a dozen less than flocks of fewer than 400 hens.

Roush also called for more efficiency in marketing eggs and for maintenance of high quality. Amother Illinois agricultural economist, R. K. Noles, pointed out that the major way to expand the market for eggs was by increasing domestic food uses. Foreign markets or non-food uses offer little market opportunity, he said.

Roush also reported that low labor costs, less opportunity for other enterprises and contract arrangements have favored broiler industry expansion in the South. He feels that some Illinois farmers with surplus labor might be interested in a small contract broiler operation as a sideline.

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1/26/59

FOR IMMEDIATE RELEASE

Follow Farm Management Principles in Selling Farmers, Dealers Told

URBANA--Merchants and dealers can really show their interest in farmers by acquiring a working knowledge of farm management principles, according to W. D. Buddemeier, University of Illinois agricultural economist.

Speaking before the University of Illinois Agricultural Industries Forum, Buddemeier pointed out that the future success of any business depends on how well it serves its patrons. And this service includes much more than just selling the necessary farm production items.

Speaking to feed dealers, the economist pointed out some of the rapid changes in farming and how they complicate farmer decisions about spending money for feed, machinery and equipment, improvements and seed. These changes have a direct effect on a dealer's volume of business, needed equipment, and service opportunities. Farmers of the future will have larger, more specialized livestock operations, Buddemeier pointed out.

Cash outlays for machinery and equipment ranked second in a sample of Illinois farms studied. Farmers' choices may often be influenced by convenience, comfort and pride as well as by profit opportunities. So machinery and equipment decisions present a real challenge, and errors of judgment may have a major effect on farm incomes, Buddemeier pointed out.

Fertilizer dealers face an excellent opportunity for expansion. By 1975 fertilizer use could be double the present use, Forum visitors

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were told. And even though fertilizer is one of the smaller farm costs, the return for each dollar spent is very high.

Seed producers and seed dealers have a good opportunity to provide farmers with a high-quality product. Buddemeier cited a research study by University of Illinois agronomists showing that many farmers were using inferior-quality seed oats. There appears to be an excellent opportunity here for real sales and promotion work that could be very profitable to both seed dealer and farmer, he concluded.

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HDG:cam
1/26/59

FOR RELEASE WEDNESDAY, JANUARY 28, 1959

Urges Mosquito Control Programs in Urban Areas

URBANA--Harold Gunderson, extension entomologist at Iowa State College, today urged every community to establish a mosquito control program.

Speaking before the Illinois Custom Spray Operators' Training School, Gunderson pointed out that the cost of a well-planned program is low and results are excellent. On the other hand, an emergency program thrown together after mosquitoes strike is expensive and generally is not effective.

In an effectively planned program, the community needs a committee to direct the necessary activities. Among them are collection of money, education of citizens, continuing publicity, supervision of control work and evaluation of results.

Who should appoint this committee? "The mayor," said Gunderson. And his committee should include representatives of all civic and service groups, newspapers and radio stations, rural and urban youth groups, schools and city health officers.

According to Gunderson, all mosquito breeding areas within one mile of town must be located and treated. If they aren't, control efforts in town will be useless.

He also urged citizens to check such things as tin cans, cisterns, rain barrels and old tires for possible accumulation of water during the summer. Mosquitoes will breed wherever they find standing water.

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PAC:cam
1/26/59

FOR RELEASE TUESDAY, JANUARY 27, 1959

Livestock Marketing Improvements Still Needed, Forum Visitors Told

URBANA--Vertical integration--or contract farming--of various types will continue to expand on the farm level, a University of Illinois agricultural economist contended at the University's first Agricultural Industries Forum today,

M. B. Kirtley told livestock marketing session participants that how far this expansion moves depends partly on how successful the present marketing system is in developing greater pricing and operating cost efficiency.

Many advantages that are listed for contract farming, he added, are what were expected to be handled by the marketing system--especially in its pricing function.

Kirtley spoke on changes in production and marketing of livestock and meats. He pointed out that "a most important change has occurred in the great expansion in the size of the market for meat--more people, more income, more production of livestock and more meat consumed."

Looking to the future, he said that the situation looks optimistic--particularly since the record levels of consumption in recent years indicate that people like meat.

In citing other changes in the production and marketing picture, Kirtley pointed to the challenges and implications these changes create.

During tomorrow morning's session, other meat packers and stockyards men will discuss adjustments to changes in the livestock industry.

-30-

LN:cam
1/26/59

THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Activity at the sheep barn is gaining momentum as each day brings more and more new lambs. In another month or two we will be able to report the Station sheep population at well over 1,600 as the flock of 750 ewes continues to contribute.

Starting about mid-February the Station cattle population will begin to grow as the beef cow herd of some 300 begins to calve. Up to the present time, most of the grade beef cows have been making their living entirely from pasture, but beginning this week feed bunks for the feeding of silage and hay are being moved onto the pastures.

Beef Cow Feed Requirements

Superintendent Bob Webb, told Station visitors during Cattle Growers Week that a dry beef cow can get the nutrients she needs from fescue pasture; but the day she calves, her requirements go up rather sharply. The day a beef cow calves, her need for dry matter increases nearly one-third. Her need for energy increases over 50 percent and, most of all, her need for protein increases about 75 percent. So fescue pasture will not properly nourish the cow with calf.

Station Ration

Starting two to three weeks before calving, we will be feeding corn silage and a mixed clover and grass hay. The silage will be fed at the rate of 40 to 50 pounds, and the hay at about 10 pounds a day. If the hay is high in clover or if alfalfa or lespedeza hay is fed, the feed requirements of that new beef mother will be adequately supplied. However, if the hay is mostly grass or is weedy or low in quality, it would be wise to feed one-half to one pound of a protein supplement, such as soybean oil meal.

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Increased Consumption

Surprising as it sounds, a beef cow will eat more total pounds of feed after calving. Most beef cattle producers will attest to this fact. In the first place, the cow's requirements are higher and her appetite increases. In the second place, following the birth of the calf, the old cow just has more room for feed. Just before calving it is often difficult to get over 20 pounds of dry feed into her; but after calving she will clean up 25 to 30 pounds of hay. So, to get bigger calves at weaning and to cut down trouble in the mature herd, we would suggest that you cater to the cow's appetite.

HAC:bm
1/28/59

for dailies

Farm News

IIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

What to Pay for Feeder Pigs

URBANA--Study of detailed cost account records at the University of Illinois gives farmers a rough guide for figuring a reasonable price to pay for feeder pigs they buy.

Figures in the table taken from the cost studies split the potential profit about evenly between the producer who raised the pig to the feeder stage and the feeder who feeds him on to market weight, says G. R. Carlisle, extension livestock specialist at the University of Illinois College of Agriculture.

The following table lists the relative value of pigs of various weights compared with the price of top market hogs.

40-pound pig = 1.8 times the value of top market hogs.
50-pound pig = 1.7 " " " " " " "
60-pound pig = 1.6 " " " " " " "
70-pound pig = 1.5 " " " " " " "
80-pound pig = 1.45 " " " " " " "
90-pound pig = 1.4 " " " " " " "
100-pound pig = 1.35 " " " " " " "

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RAJ:cam
1/29/59

FOR IMMEDIATE RELEASE

Adopt Right Attitude for Farm Safety

URBANA--Accidents to farm residents can be reduced if farmers will adopt the right attitudes, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Individuals with the right attitudes are receptive to safety advice. Farmers must convince themselves that farming the right way is farming the safe, efficient way.

Hogsett points out that most farm accidents involve attitudes. He lists seven types of individuals who show the wrong attitudes toward safety:

Hurry Harry never takes time to be careful. Harry doesn't realize that haste makes waste and that short cuts or failure to stop long enough to correct a hazard may actually cause him to lose time, money and health.

Gambler Joe gambles with his own life and happiness and the health of others. He depends on luck and takes such needless chances as allowing children to operate tractors or to ride on them.

John Scofflow doesn't take safety seriously. He knows the safety rules but thinks they are meant for the other fellow.

Sloppy Sam never gets around to eliminating hazards. He never has a place for anything, and everything is out of place on his farm. In other words, he's a bad housekeeper.

Hap Hazard tries to crowd everything into one day. He never plans ahead. Consequently, he always has to hurry to finish his work and usually ends up by having some kind of accident.

-more-

Al Arson smokes around the barn and in bed, throws away matches and cigarettes before they are out and never bothers to label flammable liquids and poisons.

Road Hog Charlie, like his city pal, thinks the whole road belongs to him. He drives his tractor and equipment down the highway after dark without any regard for other people. He is generally obnoxious in his attitude toward highway safety.

Don't become one of these characters.

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OLH:cam
1/29/59

FOR IMMEDIATE RELEASE

Untested Animals May Introduce Leptospirosis

URBANA--A University of Illinois veterinarian advises swine and cattle breeders to be sure that herd additions are not infected with leptospirosis.

This disease causes abortions and sometimes deaths. It may be introduced into herds by infected but apparently healthy animals, says Dr. L. E. Hanson of the College of Veterinary Medicine. Bulls and boars used for breeding should be blood-tested for leptospirosis.

Leptospirosis is gaining increasing attention in the nation as a threat to livestock. In the mild form of the disease, infected animals may show no signs except abortion. In severe cases there may be yellowing of the eyes and mouth membranes, loss of appetite, blood-colored urine and rapid deaths in a herd.

Blood tests will give accurate diagnosis for leptospirosis. They will detect carrier animals that appear healthy but are dangerous.

To prevent spread of the disease, keep infected animals out of a healthy herd. Be especially careful about newly purchased animals, since they are often the source of infection, points out Dr. Hanson.

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JER:sl
1/29/59

FOR IMMEDIATE RELEASE

Plant Pathologist Warns Against Scabbed Oats

URBANA--Illinois farmers should examine their seed oats for scab now.

M. P. Britton, University of Illinois extension plant pathologist, says he has seen many samples of scabbed oats with as many as 20 percent of the kernels infected. Sowing infected seed will mean decreased stands unless the seed is treated with fungicides.

Scabbed kernels are a dirty gray color. They may be partly covered by a salmon-colored fungus growth or small black spore-bearing structures. The kernels may be light and chaffy, although Britton reports that most of the samples he has seen are not badly shriveled.

If scabbed kernels are sown without treatment, the fungus will either kill the infected seeds before they come up or produce weak, low-yielding plants. When scabbed grain has to be sown, Britton advises cleaning the seed carefully to get rid of any light or shriveled kernels. After cleaning, the seed should be treated with a mercury fungicide, such as Ceresan or Panogen, in either liquid or dust form.

The disease is also carried in the soil, on the crop residues of wheat, barley and corn as well as oats. Untreated healthy oat seed is likely to pick up the fungus from these soils, but the mercury treatment protects the seed from soil-borne scab.

The same mercury treatment is also effective in controlling oat smuts. According to a 1958 drill box survey, a high percentage of Illinois oats is infected with smuts. Farmers can fight both diseases at once by treating their seed oats.

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BJ:cam
7/29/59

FOR IMMEDIATE RELEASE

Announce Illinois Insect Outlook for 1959

URBANA--H. B. Petty, extension entomologist with the Illinois Natural History Survey and the University of Illinois,gives the state's farmers his views on the insect outlook for 1959.

Speaking before the Illinois Custom Spray Operators' Training School in Urbana last week, Petty announced that the first-generation corn borer population was larger in 1958 than in 1957. This fact is based on a survey Petty and other entomologists conducted in the fall of 1958. Most borers are located in the west-central and northwestern sections of the state.

Spittlebug populations are expected to be high this year. Most of these insects will be in the area north of a line from Rock Island to LaSalle or Cook counties. Petty reported that in 1958 farmers were not interested in protecting legumes from spittlebug attack, as they apparently had enough hay on hand.

Chinch bug populations will remain low. And because little control was required in 1958, little is expected to be needed in 1959.

As for grasshoppers, adult populations are generally light throughout the state except for one small area in the southeast. Little trouble is expected.

Petty feels that, unless soil insecticides are used, grape colapsis may damage corn or soybeans that follow red clover or second-year beans in western, west-central and west-southwestern Illinois. For cultural control, Petty advises plowing red clover ground early, disking frequently, using fertilizers with high levels of phosphate and not planting too early.

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The outlook for corn flea beetles has not been determined. Their numbers will depend on how well they survive the winter. Survival, in turn, depends on temperature, snow cover, sudden hard freezes and other severe weather conditions.

In summary, Petty advised farmers and spray operators to use more soil insecticides. Research work, as well as actual farmer use, has proved the tremendous value of soil insecticides in reducing insect pests.

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PAC:cam
1/29/59

Cutline to Accompany Map of 1959 Corn Borer Prospects

The 1959 corn borer prospects in Illinois are most serious in the northwestern part of the state, according to University of Illinois and Illinois Natural History Survey entomologists. The figures represent the estimated average number of borers per 100 stalks of corn as of October 1, 1958. These figures were used to estimate corn borer populations for 1959.

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PAC:cam
1/29/59

FOR IMMEDIATE RELEASE

Ag Industries Forum Draws More Than 600

URBANA--More than 600 businessmen serving American farmers registered at the first Agricultural Industries Forum at the University of Illinois this past week.

In response to requests from all those attending, H. G. Halcrow, head of the department of agricultural economics, has announced the tentative dates of February 2-3, 1960, for the second annual forum.

Although the forum was designed primarily for Illinois businessmen, representatives were present from Missouri, Michigan, Ohio, Indiana, Iowa, Washington, D. C., and Canada.

This year's forum was sponsored by the College of Agriculture in cooperation with the University's Division of University Extension.

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IDG:cam
1/29/59

FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending January 30, 1959, is prepared as a special service by the University of Illinois grain marketing staff.)

Little Hope for Substantial Corn Price Rise

URBANA--The most puzzling question about the corn price is whether it will increase enough between now and summer to pay for holding the corn, according to University of Illinois agricultural economist T. A. Hieronymus.

Corn and soybean prices have been very steady for several weeks. Corn has hovered just below $1.05 to farmers, and soybeans around $2.10. Farmers would be ahead to sell corn at current prices rather than put it into the low loan and surrender it next summer, Hieronymus believes.

In view of available corn supplies, the price does not seem likely to go up more than 2 or 3 cents, if at all. The supply on January 1 totaled 3,925 million bushels compared with 3,601 million a year earlier. With the larger carryover in prospect, there is no reason to expect corn to go above $1.10--the price needed to draw it out of the low loan.

Commodity Credit Corporation continues to sell 3 to 5 million bushels of corn per week. The CCC will likely continue to sell at this rate or above for the rest of the season.

Corn use from October through December hit 983 million bushels compared with 880 million a year ago. This 12 percent increase throughout the whole year would mean a carryover of 1.5 billion bushels of corn next fall--only 73 million larger than last October. This estimate is probably too optimistic, Hieronymus points out. But considering that our corn crop was 382 million bushels larger, this relatively small increase in carryover shows that a large number of hogs can cut into a record corn crop at a very rapid rate.

-more-

(This grain report analysis for the week ending January 30, 1939, is prepared as a special service by the University of Illinois grain marketing staff.)

Little Hope for Vegetable Corn Price Rise

URBANA--The most puzzling question about the corn price is whether it will increase enough between now and summer to pay for holding the corn, according to University of Illinois agricultural economist T. A. Hieronymus.

Corn and soybean prices have been very steady for several weeks. Corn has hovered just below $1.05 in Jarmers, and soybeans around $2.10. Farmers would be glad to sell corn at current prices rather than put it into the low loan and surrender it next summer, Hieronymus believes.

In view of available corn supplies the price does not seem likely to go much more than 2 or 3 cents, if at all. The supply on January 1 totaled 3,092 million bushels compared with $,001 million a year earlier. With the larger carryover in prospect, there is no reason to expect corn to go above $1.10--the price needed to draw it out of the low loan.

Commodity Credit Corporation estimates to sell 2 to 3 million bushels of corn per week. The CCC will likely continue to sell at this rate or above for the rest of the season.

Corn use from October through December hit 983 million bushels compared with 800 million a year ago. This 19 percent increase throughout the whole year would mean a carry-over of 3.5 billion bushels of corn next fall--only 17 million larger than last October. This estimate is probably too optimistic Hieronymus points out. But considering that our corn crop was 3?3 million bushels larger, this relatively small increase in carryover shows that a large number of hogs can put into a record corn crop at a very rapid rate.

-more-

The free corn supply at Chicago is not large. Considerable amounts will be sold for shipment when lake navigation opens in the spring. Corn movement to Chicago will surpass that of last year. But continued CCC selling poses a serious threat to this potential market. Unfortunately, grain that CCC takes away must eventually come back to the market, Hieronymus concludes.

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HDG:cm
1/30/59

The free corn supply at Chicago is not large. Considerably more will be sold for shipment when lake navigation opens in the spring. Corn movement to Chicago will average that of last year. But continued CCC selling keeps a serious threat to this potential source. Unfortunately, grain that CCC turns away must eventually come back to the market, Mitchyama concludes.

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HLD:cm
7/30/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS
FEBRUARY - MARCH 1959

February 2-March 13	Agricultural Short Course, University of Illinois, Urbana.
February 3-6	Illinois Egg Grading School. Veterinary Medicine Building, University of Illinois, Urbana.
February 4	Illinois Feed and Nutrition Conference. Illini Union Ballroom, University of Illinois, Urbana.
February 9	Calhoun County Area Orchard School, Hardin. (Original date was January 21.)
February 10-11	Southern Illinois Vegetable Growers' Association and Southern Illinois Horticultural Society Annual Meeting. Plant Industries Building, Southern Illinois University, Carbondale.
February 12	Centralia Strawberry Meeting. Sentinel Building, Centralia, 7:30 p.m.
February 16-18	Chicago Barrow Show. Chicago.
February 17	Union County Area Strawberry Meeting. Cobden.
February 18	Franklin County Area Strawberry Meeting. Benton.
February 18-20	Midwestern Chapter of National Shade Trees Conference. LaSalle Hotel, Chicago.
February 25	St. Louis Barrow Show. National Stockyards.
February 26	Illinois State Turkey Growers Annual Meeting. 135 Animal Sciences Laboratory, University of Illinois, Urbana.
February 26	DuPage County Area Horticultural Meeting. Morton Arboretum, Downers Grove.
February 28	Junior Dairy Calf Sale. Stock Pavilion, University of Illinois, Urbana. 11:00 a.m.
February 28-March 7	National 4-H Week
March 4	Saline County Greenhouse Meeting. Farm Bureau Building, Harrisburg.
March 4	Williamson County Greenhouse Meeting. Farm Bureau Building, Marion.
March 5	Union County Area Vegetable Growers' Meeting. Farm Bureau Building, Jonesboro. 7:30 p.m.

(Continued)

March 5	Swine Day. University of Illinois, Urbana. Program begins with tours of UI Swine Farm at 8:00 a.m. Formal program begins at 10:30 a.m. in the University Auditorium.
March 10	Peoria Area Swine Day. Youth Center in Exposition Gardens, 9:30 a.m.
March 10	Farm Machinery Day. University of Illinois Stock Pavilion, Urbana.
March 10	Johnson County Area Spray Meeting. New Burnside, 7:30 p.m.
March 11	Cambridge Area Swine Day. Community Building, 9:30 a.m.
March 12	Rock Falls Area Swine Day. Armory Building, 9:30 a.m.
March 13	DeKalb Area Swine Day. Northern Illinois University Auditorium, 9:30 a.m.
March 13-14	Mississippi Valley Spring Barrow Show. Mississippi Valley Fairgrounds, Davenport, Iowa.
March 16	Macomb Area Swine Day. Macomb Presbyterian Church, 9:30 a.m.
March 17	Jacksonville Area Swine Day. High School Auditorium, 9:30 a.m.
March 18	Mt. Vernon Area Swine Day. High School Auditorium, 9:30 a.m.
March 18	Henderson County Area Melon and Tomato Growers' Meeting. Lomax, 7:30 p.m.
March 24-25	Dixon Springs Sheep Shearing School. Robbs. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
March 25-26	Dairy Technology Conference. University of Illinois, Urbana.
March 26-27	Dixon Springs Sheep Shearing School. Robbs. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
March 30-31	Sheep Shearing School. Seneca. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
March 31	Macon County 4-H Vegetable Judging and Grading Meeting. Farm Bureau Building, Decatur, 7:30 p.m.
April 2-4	FARM AND HOME FESTIVAL. University of Illinois, Urbana.

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PAC:jb
2/2/59

for dailies

Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Proper Gasoline Storage Safer and Cheaper

URBANA--A good gasoline storage setup on your farm not only will be safer, but will save fuel.

O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture, says a lot of fuel evaporates before you get a chance to burn it. Keeping the tank in an unshaded place can triple evaporation losses. And having too big a tank--one that holds more than 15 working days' supply--boosts losses even more.

Don't shade your tank by putting it in a building. A roof set on posts above the tank is best, because it allows air to circulate freely around the tanks and carry away the dangerous gasoline vapors.

When you're picking a location for the tank try to select one at least 40 feet from buildings. This distance provides better ventilation and keeps possible fire from spreading.

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DLH:cm
2/2/59

FOR IMMEDIATE RELEASE

Continue Development of Field Hay Pelleting

URBANA--How long will it be until farmers can pellet their hay right in the field just as they now chop or bale it.

Researchers and farm machinery manufacturers are working hard to develop a field pelleting machine, reports University of Illinois agricultural engineer G. E. Pickard. But no one will have such a machine ready for next spring's haying season.

Most of the feeding trials that have interested livestock men in pelleted roughage have used small, hard pellets. Very dry and finely ground hay is needed to make such a pellet.

In addition, this operation requires steam to help hold the pellet together and to lubricate the pelleting die. And it takes a large amount of power to force the hay through the tiny openings. Pickard sees little chance of ever developing a field machine for this operation.

Instead, Pickard has found that hay wafers larger than the steamed pellets can be made with long or chopped hay containing up to 25 percent moisture. The wafer method gets rid of the steam requirement and also the drying and grinding necessary to make steamed pellets. Pickard believes this method is the key to compressing hay with a field machine.

Most of the farm machinery manufacturers are working on a field wafering machine, and the public has already seen one experimental model.

The most-needed improvements in the experimental machines are a reduction in the needed amount of power and the ability to wafer hay with high moisture levels. Considering the present interest in pelleting and wafering, Pickard suggests that whoever brings out a field machine farmers can afford will find a ready market.

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PBJ:cm
2/2/59

FOR IMMEDIATE RELEASE

Set Veterinary Medicine Career Conference for February 26

URBANA--High school students interested in a career in veterinary medicine are invited to attend the second annual Illinois Conference on Preveterinary and Veterinary Medical Education on Thursday, February 26, in the Veterinary Medicine Building at the University of Illinois, Urbana.

A special program for high school students will be added to the conference this year, according to Dr. J. O. Alberts, chairman of the conference committee. The conference is designed to familiarize college and high school advisers, counselors and biology teachers with the opportunities in veterinary medicine and the requirements for admission to the College of Veterinary Medicine.

"This year we are making a special effort to reach as many high school people as possible. Because students often choose or become interested in their future careers before they enter college, it is particularly important to reach them early," says Dr. Alberts. High school students who are interested in attending the conference should contact their high school administrator.

Two years or more of preveterinary medical training in college are required for admission to the four-year professional curriculum leading to the Doctor of Veterinary Medicine degree. "However," Dr. Alberts says "if a student is interested in training for veterinary medicine, we believe that his orientation should begin before he reaches college."

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A wide choice awaits graduates in veterinary medicine. Although 60 percent of all veterinarians are engaged in some kind of practice, there are also broad opportunities in public service; teaching and research; public health; national, state and local regulatory and inspection activities; food sanitation and related activities.

Graduate veterinarians must be able to diagnose, treat and prevent both animal and poultry diseases, as well as know about animal diseases that attack human beings.

The UI College of Veterinary Medicine gives preference to Illinois residents, but does not refuse out-of-state students who show outstanding promise. The college occupies a new four-story brick building, one of the finest of its kind in the country. It houses offices, laboratories and classrooms used for teaching and research.

Students get actual training in the new large animal clinic, the small animal clinic and the diagnostic laboratory. For further information about veterinary medicine training, write to Dean C. A. Brandly, College of Veterinary Medicine, University of Illinois, Urbana, Illinois.

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JER:cm
2/2/59

FOR IMMEDIATE RELEASE

1959 UI Swine Day March 5; Area Swine Days a New Feature

URBANA--The annual University of Illinois Swine Day, one of the most popular agricultural events among Illinois farmers, will be held on Thursday, March 5, in Urbana.

In addition, 1959 introduces a brand-new series of seven Area Swine Days throughout Illinois. These days are planned for farmers who cannot attend the Urbana event. So for the first time this year hog producers in every corner of the state can attend at least one Swine Day.

Here are the dates and locations of the Area Swine Days:

March 10 -- Peoria, Youth Center in Exposition Gardens
March 11 -- Cambridge, Community Building
March 12 -- Rock Falls, Armory Building
March 13 -- DeKalb, Northern Illinois University Auditorium
March 16 -- Macomb, Presbyterian Church
March 17 -- Jacksonville, High School Auditorium
March 18 -- Mt. Vernon, High School Auditorium

All Illinois swine growers are invited to attend the Urbana Swine Day or any Area Swine Day they may choose, according to S. W. Terrill, head of the University of Illinois College of Agriculture swine division.

Terrill reports that the Urbana program on March 5 begins at 8:00 a.m. with a tour of the swine farm. The farm is located on South First Street in Champaign. Visiting hog producers will see facilities and research projects in progress. The formal program begins at 10:30 a.m. in the University Auditorium

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Programs at other locations will begin at 9:30 or 10:00 a.m. All sessions will adjourn at 3:00 p.m.

The morning programs at each Area Swine Day will be the same as at Urbana. Swine nutritionists and extension specialists will present reports of UI research conducted in 1958. Highlighting these reports will be a comparison of complete and free-choice rations, and mixtures of corn and supplements for growing-finishing swine.

Other morning topics include feeding and management of baby pigs, feeder space requirements and the response of growing-finishing swine to antibiotics.

The afternoon program at Urbana will begin at 1:15 with a welcoming talk by Louis B. Howard, Dean of the College of Agriculture. He will be followed by L. H. Simerl, extension agricultural economist, who will discuss the question, "Are You Going to Make Money With Hogs?" Also on the afternoon program are D. G. Jedele and F. W. Andrew, extension agricultural engineers. Jedele will speak on "Planning your Swine-Finishing Building" and Andrew will discuss "Mechanizing your Swine Finishing Building."

Swine equipment and other exhibits will be displayed at the Stock Pavilion during the day.

The programs at the other locations will be about the same as the Urbana program. However, area swine producers will discuss different types of management programs.

Luncheon will be available at each Swine Day. In Urbana the Block and Bridle Club will serve lunch.

Watch your local newspapers for times of the Swine Day programs in your area. Many producers in northern and western Illinois will have the choice of attending two or three meetings without going very far.

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PAC:cm
2/2/59

FOR IMMEDIATE RELEASE

Dairy Record-Keeping at All-Time High

URBANA--Records kept on Illinois dairy herds reached an all-time high during 1958.

Number of herds enrolled in the three record-keeping programs organized under the National Cooperative Dairy Herd Improvement program reached a total of 2,609, according to G. W. Harpestad, extension dairy specialist at the University of Illinois College of Agriculture.

This was an increase of 183 herds over 1957, the previous high year, Harpestad points out.

Largest group, 1,835 herds and 55,829 cows, was enrolled last year in the Dairy Herd Improvement program. This was an increase of 14 herds and 1,516 cows over 1957.

In the DHIA program,the dairyman keeps milk and fat records on each individual cow in his herd, along with records on feed consumption. He can use these figures as reliable guides for most efficient feeding and management of his herd. In addition, records computed in DHIA herds are used in the National Sire-Proving Program, and each dairyman gets a certain amount of local and state publicity on his records.

Last year 402 herds, including about 8,563 cows, were enrolled in the Owner-Sampler record-keeping program. Under this program, the dairyman keeps milk and fat records on his individual cows and he may, if he wishes, keep feed records. The difference between the Owner-Sampler and the DHIA program is that under the Owner-Sampler program the farmer must weigh his own milk and take the samples himself, whereas in the DHIA program a supervisor does it for him.

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Youngest and fastest growing record-keeping program is the Weigh-A-Day-A-Month, or WADAM, program. During 1958, 372 herds were enrolled in this program, an increase of 107 herds over the previous year. WADAM is a simplified record-keeping program in which the dairyman keeps records only on the amount of milk produced by each individual cow. These milk records, however, can be a valuable guide to him in feeding and managing his herd.

At least one of these record-keeping services is available through the farm adviser's office in nearly every county in Illinois. Dairymen who are interested in getting the benefit of records on their herds should contact their farm adviser for details on how to join one of these programs.

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RAJ:cm
2/2/59

FOR IMMEDIATE RELEASE

Select Four 4-H'ers as Junior Fact Finders

URBANA--Four of the state's outstanding 4-H poultry project members have been invited to attend the sixth Junior Fact Finding Conference on poultry and eggs at Kansas City, Missouri, February 12-15.

The Illinois 4-H'ers are Kenneth Ray Bolen, Akin; Paul F. Gleason, 1531 N. Logan, Lincoln; William L. Groennert, Route 1, Nashville; and Richard T. Nagel, Basco.

4-H and FFA members from 25 states are expected to take part in the conference, according to O. F. Gaebe, state leader of agricultural 4-H Clubs at the University of Illinois College of Agriculture. Program sessions will be held in conjunction with the Senior Fact Finding Conference in the Kansas City Municipal Auditorium.

Main purpose of the conference is to help young people see the vocational opportunities in the poultry industry, Gaebe says. The program is designed to stimulate their interest in further training for careers relating to marketing, processing and merchandising poultry and poultry products.

While they are in Kansas City, the Illinois 4-H'ers will attend educational tours, clinic sessions and meetings of the senior group. S. F. Ridlen, extension poultry specialist at the UI College of Agriculture, will also accompany the boys as chaperon.

Sponsors of the meeting include the Institute of American Poultry Industries, the Cooperative Extension Service and the National Committee on Boys and Girls Club Work. The Illinois Poultry and Hatchery Federation and the Illinois 4-H Foundation will sponsor the Illinois delegation.

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RAJ:cm
2/3/59

THIS WEEK. . . .

AT DIXON SPRINGS

(A roundup of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate.)

Last week while in a conversation with Lee Gard, soil conservationist and irrigation researcher on the Station, this question came up, "With such huge surpluses of feed grains, is it wise and is it necessary to continue research irrigation of corn?" Lee's answer was that many people in the world's heavily populated areas go to bed hungry each night and spend most of their waking hours attempting to stave off starvation. On the other hand, we in this country spend only about one-fifth of our time or income for food, and this fifth feeds us well. Of course, Lee and all of us recognize the fact that a lot of the difference is in population numbers and the amount of land available to each person for food production. But Lee emphasized that one of the reasons we eat so satisfying at so little cost is that agricultural research is constantly finding higher yielding varieties, better cultural methods and more efficient ways to use water, land and labor resources.

Agricultural Land Decreasing

There is little or no new land to be opened for agriculture in this country. We are taking up more and more agricultural land in roads, cities and industrial development. All of this is in the face of an increasing population. So we must agree with Lee that research cannot drag its feet if we are to continue to enjoy good eating.

Irrigation Pays

Now, back to irrigating corn: Lee has pretty well determined that on the Dixon Springs Station soils will take about 18 to 21 inches of water to produce corn yielding better than 100 bushels an acre. It would seem that in an

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area with 45 inches of annual rainfall we would have plenty of water without irrigating. Four feet of soil will hold about 13 inches of water, and we have about 11 inches falling during the production of the corn crop. This looks like an ample amount. But Lee has found that, at the most, only about half of the soil water is used and that during most summers moisture becomes critical at about the time corn is tasseling. Even though the soil water is present, it is deeper than the heavy rooting zone of the corn plant and isn't released freely enough for maximum plant growth. So, even in years of normal rainfall, 4 inches of irrigation water applied at tasseling time has increased corn yields 20 to 30 bushels an acre at an irrigation cost of about sixteen dollars.

With Lee's results and his arguments on the need, I guess we should let him go ahead irrigating.

HAC:bb
2/4/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

75 Register for Ag Short Course

URBANA--Seventy-five persons registered this week for the eighth annual winter agricultural short course at the University of Illinois College of Agriculture.

Warren Wessels, short course director, expects that more will enroll during the week if the weather improves. The short course began officially on February 2 and will continue through March 13.

The young people spent the first day of the short course registering for courses and getting acquainted with the campus. Now they are attending classes daily, absorbing as much knowledge as possible in their six-week role as students.

Courses offered by the College of Agriculture for the short course includes subjects in agricultural economics, agricultural engineering, agronomy, animal science, dairy science, home economics and veterinary medicine.

The short course is designed for young men and women who cannot attend college on a regular basis. It offers them a chance to learn about latest developments in both agriculture and home economics research.

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PAC:cam
2/5/59

FOR IMMEDIATE RELEASE

Living Insecticides a New Weapon for Farmers

URBANA--Living insecticides, one of the brightest new developments in modern agriculture, will soon be another ally of farmers in their continual battle against destructive insects.

Living insecticides are living microorganisms, explains John Briggs, research entomologist with the Illinois Natural History Survey. They include bacteria, viruses, protozoa, fungi and nematodes.

According to Briggs, living insecticides are applied in the same way as chemical insecticides. The microbial preparations are spores of the specific microorganism, dried to a powder for formulation as dusts or sprays. Spores, he adds, are one of the developmental stages in an organism's life.

How do these insecticides work? They attack destructive insects, causing them to develop fatal diseases.

Briggs points out that beneficial insects are not harmed by living insecticides. The reason is that living insecticides settle on leaf surfaces, and beneficial insects seldom dine on the surfaces of leaves. This leaves the entire meal for destructive bugs.

There are several excellent examples of controlling insects with living insecticides. Among them are bacteria against the Japanese beetle; a virus against the alfalfa caterpillar; a fungus disease against the spotted alfalfa aphid; and a virus disease against sawfly populations in Canadian forests.

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Microorganisms used as insecticides have several advantages. First, they are not toxic to warm-blooded animals. This means that farmers can continue grazing livestock in fields that have been treated. Neither are they toxic to humans.

Second, as already pointed out, they do not harm beneficial insects.

The idea of living insecticides closely parallels that of bacterial warfare. However, industrial production of microorganisms for use as living insect killers is a new idea. In fact, 1958 was the first year in which they were produced in commercial quantities. Scientists are still studying them, trying to find ways to produce them more economically and yet make them more effective.

So far only one company produces a living insecticide approved by the Federal Food and Drug Administration for use on food and forage crops. And it is approved only for testing. This company, the Bioferm Corporation, is located in Wasco, California. Its product is called "Thuricide."

As a general rule, only experiment stations and canning companies can obtain Thuricide. Until the FFDA establishes certain recommendations for its use, farmers cannot buy it from their insecticide dealers.

As to its cost in comparison to other insecticides, Briggs says a commercial price has not been determined. But he thinks the price will be about comparable with prices of the conventional insecticides.

Living insecticide material will soon be available for field testing under the auspices of the Illinois Natural History Survey and the Illinois Agricultural Experiment Station. For more information, Briggs suggests contacting H. B. Petty, extension entomologist, 280 Natural Resources Building, University of Illinois, Urbana.

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2/5/59

FOR IMMEDIATE RELEASE

Announce Plans for Second Farm and Home Festival

URBANA--The University of Illinois College of Agriculture this week released plans for the second Farm and Home Festival on April 2, 3 and 4.

According to Dean Louis B. Howard, this year's festival will feature the theme, "Research for Tomorrow." More than 100 dramatic displays and exhibits will show how research is helping farmers, agricultural businessmen and families make decisions now and in the future.

In addition to six major exhibit areas, the Festival will feature a top-notch speaking program on topics of high current interest, the Town and Country Art Show and the Town and Country Talent Show. Square and folk dancing for both beginners and advanced western dancers will be held on Thursday evening, April 2. Students of the College of Agriculture are sponsoring their annual "Plowboy Prom" as the Festival finale on Saturday night, April 4.

The first Festival last year attracted over 15,000 people, and this high interest makes it desirable to hold another Festival this year.

The six exhibit areas located on the south campus of the University at Urbana will cover crops and soils, livestock, mechanization, food industries, family living and educational services.

In the crops and soils area, scientists will demonstrate soil mapping, strip-mine reclamation and soil nitrogen behavior and will show how fertilizer recommendations are determined. Plant breeders will show new types of scab-immune apples, new tomatoes, new products

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from corn and the benefits from using top-quality seed. Other exhibits will feature new systemic insecticides, soybean root rot control, protective fruit spraying, control of plant diseases with fungicides, weed chemicals of the future, new popcorn varieties and successful forest culture. The floriculture greenhouses will be open to Festival guests.

In the livestock area, Festival visitors will see an "animal fair" featuring the many birds and animals used in research, such as Japanese quail, albino rats, guinea pigs, chinchillas, mice, rabbits, goats, baby pigs, chicks, lambs and calves. Veterinary scientists will preview disease control of the future and its importance to the health of both farmers and consumers. Livestock men will be particularly interested in a new pneumatic feed-conveying exhibit with full-sized grinding and feed-conveying unit in a truss-roofed rigid-frame building. Dairy scientists will see how milk is made from the glands of the cow. Poultry research workers will hunt eggs with a geiger counter when they feed hens radioactive feed.

In the mechanization area, agricultural engineers will show how they are working to increase power, economy and ease of maintenance of farm tractors. Other exhibits will feature feed-pelleting machines, mechanized feed-handling equipment, minimum tillage and fertilizer application.

In the food industries area, research workers will show results of their efforts to expand food consumption through better processing methods, improved packaging, higher food product quality and new

market development. Other exhibits will feature a packaging parade, preservation of poultry meat by atomic radiation, soft-frozen dairy products, concentrated milk, bread quality, graded eggs, safe use of antibiotics for dairy cows, expanding soybean markets and feed grain use, hog prices and the odor wheel.

The family living area will feature exhibits of home planning, lighting, landscaping, insect control and a farm home improvement contest. The classrooms and laboratories in Bevier Hall, the new home economics building, will feature student art work in costume design, how to judge furs and fabrics, an occupational therapy weaving demonstration and the wheel-chair kitchen.

"Living and Growing With Your Preschool Child" will be featured in the Child Development Laboratory.

The education services exhibit area will feature the college of agriculture, the agricultural experiment station, the extension service, student activities, youth programs and other special educational services performed by the College and cooperating organizations. Students interested in attending college can find out about costs, admission requirements and the many opportunities for participating in campus activities and careers for agricultural college graduates.

Saturday, April 4, is Youth Day. All young people and their parents and teachers are especially invited to attend on this day. Agricultural Student Guest Day and Home Economics Hospitality Day will be held as part of this day's program.

The Festival of Contemporary Arts, sponsored by the College of Fine and Applied Arts, will be in its final week, and all Farm and Home Festival guests will also have the opportunity to see these exhibits.

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FOR IMMEDIATE RELEASE

1958 Cattle Feeding Profitable For Illinois Farmers

URBANA--Low feed prices and favorable fat cattle prices made cattle feeding a profitable enterprise for Illinois farmers in 1958.

Records kept by farmers cooperating with the Illinois Farm Management Service show that returns for every $100 feed fed ranged from $144 for heifer calves and long-fed yearlings to $173 for short-fed yearlings. Similar returns were $149 for steer calves and $169 for heavy steers.

A. G. Mueller, agricultural economist in charge of farm record analysis at the University of Illinois, reports that in 1957-58 all systems produced feeding margins above the average for the past five years. Feeding margin is the difference between cost of gain put on the cattle and the sale price received for them.

Steer calves put on the lowest cost gains--$16.94 per hundred-according to these farmers' records. Gains on heifer calves cost $17.83 long-fed yearlings on pasture, $18.61; short-fed yearlings, $19.48; long-fed yearlings in drylot, $19.75; and heavy steers, $21.74.

Mueller feels that feed costs for 1959 will not change much from those of 1958. But feeder calves bought last fall cost $5 to $10 a hundred more and yearlings $4 to $6 more than a year ago. Selling prices remain uncertain. And even if 1959 selling prices hold about the same, returns from feeding cattle will be down because of the reduced price margin.

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2/5/59

FOR IMMEDIATE RELEASE

Save 20 Days' Working Time

URBANA--Would you like to avoid the loss of 20 days' working time and $40 in hospital expenses this year? You can do it by eliminating farm accidents, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

A survey by the U. S. Bureau of Agricultural Economics shows that more than 20 days are lost in the average farm accident each year and that medical and hospital costs average over $40.

You can take one big step in preventing accidents this year by having machinery serviced and adjusted early for spring work. Give each machine a good going over, and replace all broken and worn parts.

Tractors are one of the worst farm accident offenders. The National Safety Council reports that tractors are involved in nearly 75 percent of all accidents with farm machinery. In using the tractor, make sure to stop the machine before dismounting, and be sure that it is out of gear before cranking it. Never allow children to ride on the tractor, and make sure that you are always on the seat or standing on the platform. Always keep the tractor in gear when going down a steep hill.

Last of all, Hogsett adds, use your head. The main safety rule for operating a tractor or any other machinery in a field is just good common sense.

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2/5/59

THIS WEEK . . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Microbe hunters and wildlife hunters collaborated at Dixon Springs during the two-week period around Christmas and New Year's Day. The purpose was to search for the leptospirosis organism that infects many animals.

Leptospirosis was first diagnosed in Illinois cattle about 10 years ago. The disease may be costly--affecting milk flow and causing abortions and even death in younger animals. It is not a simple disease caused by a single "lepto" organism, but is caused by a whole family in which each "cousin" differs.

"Lepto" organisms of various types have also been found in wild animal populations. During the deer season, University veterinarians collected many blood samples from deer. One of the objects was to determine the incidence of and the kind of lepto organisms in the deer population.

Trapping

Dr. Deam Hunter Ferris from the College of Veterinary Medicine, with help from Whitnel Evitts and Norris Schuchardt, local trappers, and D. R. Stutz, a University of Illinois zoology student, ran daily trap lines in the fields and barns of the Station. Eight-five wild animals and birds were caught. Included in the catch were mice, rabbits, possums, raccoons, foxes, mink, muskrats, moles and even an owl.

From each animal a blood sample was taken, and tissue samples of liver, kidney and spleen were prepared for laboratory tests. It is from these samples that Dr. Farris hopes to learn more about the wildlife reservoir of this relatively new but costly disease to the livestock industry.

One of Dr. Farris's trade secrets is that you'll catch more mice with peanut butter than with cheese for bait.

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Grain Sorghum Silage

Sorghums have a reputation for making a crop during years of limited rainfall, and variety trials at the Station show that they have strength under two other conditions. George McKibben, station crops researcher, says that hybrid grain sorghums appear to be good bets to compete with corn for the production of silage in years of late plantings and in wet as well as dry years. In 1957, a year of late planting, and in 1958, a very wet year, hybrid grain sorghums produced not only more silage, but more grain than did corn. A good grain sorghum bet any year is R. S. or Texas 610.

HAC:cm
2/7/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Late Winter Weather May Bring Hog Influenza

URBANA--Cold rains, chilly winds and the changing weather of late winter plus inadequate housing may bring a real threat of influenza to hogs that are exposed.

Dr. J. R. Pickard, University of Illinois extension veterinarian, says that hogs with influenza usually run a high fever, have poor appetites, develop coughs and may breathe with difficulty.

Death losses are usually low, and most of the animals will recover in about a week. But the disease will cause the animals to lose weight and will reduce their resistance to other diseases, such as pneumonia and necrotic enteritis.

To prevent influenza, Dr. Pickard recommends that swine growers provide clean, dry quarters for their hogs and make sure that the animals get a balanced ration. Another precaution during the thawing season is to keep the hogs from rooting in places where earthworms are plentiful. Earthworms are carriers of the virus that causes influenza in hogs.

There is no way to vaccinate against swine influenza, points out Dr. Pickard. If the disease does break out, put the sick hogs in comfortable houses, and call a veterinarian.

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JER:cm
2/9/59

FOR IMMEDIATE RELEASE

Illinois Turkey Growers Meet on February 26

URBANA--Members of the Illinois Turkey Growers Association will take a look into the future of their industry at their 26th annual meeting on Thursday, February 26, at the University of Illinois.

Association President Gerald Bonnett, Havana hatcheryman, will be one of the panel members who will discuss the future of the Illinois turkey industry during the day's program. Other panel members will include Sheldon Swann, Waterman grower; Brad Mason, Produce Terminal Cold Storage, Chicago; and J. R. Roush, assistant professor of agricultural marketing at the University of Illinois.

Walter Schwedler, Portland, Oregon, president of the National Turkey Federation, will also be present at the meeting to discuss national activities.

Members will discuss federal inspection in Illinois dressing plants during the program. Howard Kauffman, Waterman grower, will moderate the panel discussion. Others will include A. C. Enloe, Athens; Dan Sinn, Tremont; Leo Hager, Altona; and D. R. Boyens, Chicago.

Jack Hough, editor of Turkey World, Mt. Morris, and Ralston R. Hannas, editor of Turkey Producer, Chicago, will take a look at the turkey business from an editor's viewpoint.

M. C. Small, executive secretary of the National Turkey Federation, Mt. Morris; Lloyd Geil, general manager, Poultry and Egg National Board, Chicago; and Clay Robinson, Dave Evans and Associates; Salt Lake City, Utah, will talk about selling more turkey through promotion.

Annual meeting of the association will be held during lunch at noon in Latzer Hall of the University Y.M.C.A. The annual banquet starts at 6:30 p.m. in the same location with Ray Eliot, head football coach at the University of Illinois, as principal speaker.

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2/9/59

FOR IMMEDIATE RELEASE

Junior Calf Sale One of Nation's Oldest

URBANA--When 4-H and F.F.A. members buy dairy calves at the 11th annual Dairy Calf Club sale in Urbana on February 28, they'll be taking part in one of the oldest sales of its kind.

So far as is known, says J. G. Cash, University of Illinois dairy extension specialist, this calf club sale was one of the first in the country.

It's a unique sale, the specialist points out. The entire sales force donate their services so that the consignors do not have to pay a charge for selling. Dairymen throughout the state bring in some of the best show prospects in their herds to give 4-H and F.F.A. youngsters the right kind of start in the dairy business.

Many calves bought very reasonably at these club sales are now high producers and foundation animals for several good Illinois herds.

Some 90 calves representing the Holstein, Guernsey, Brown Swiss, Jersey and Ayrshire breeds will start through the auction ring at 11:00 a.m. on Saturday, February 28, in the stock pavilion at the College of Agriculture.

Purchasers must all be bona fide 4-H or F.F.A. members from Illinois. If a member can't attend, he may designate another person to buy for him, but he will have to certify that the calf will be used for club projects.

The Illinois Purebred Dairy Cattle Association, sale sponsor, will send catalogs to persons writing to J. G. Cash, Dairy Science Department, University of Illinois, Urbana.

Lunch will be available at the stock pavilion.

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RAJ:cm
2/9/59

FOR IMMEDIATE RELEASE

Illinois Corn Thriving in Florida This Winter

URBANA--Illinois corn breeders are having an excellent growing season for their Florida corn research program this winter, according to reports from University of Illinois research workers just returned from there.

Earl Leng, UI corn breeder, reports that they harvested one-half acre of corn on December 24 that had been planted on September 20. Some of this corn was dried, shelled, treated and planted again on December 30. With continued favorable weather, they expect to harvest it by April 30 and bring back seed for planting here in Illinois next summer. This sequence of fall, spring and summer crops requires close timing. But it makes possible a greatly speeded-up research program to develop new improved hybrids for Illinois corn producers, Leng points out.

In their main 4 1/2-acre winter nursery, corn planted in November is being pollinated now and will be harvested in mid-March. This plot is located in a large truck-farming area near Homestead, Florida.

This winter research program is conducted in cooperation with the Illinois Seed Producers Association. It enables agronomists and botanists to carry out a much more rapid research and development program than if only one generation of corn a year were grown. Leng estimates that at the same cost as is required to operate the University corn greenhouse that holds 450 plants, they can produce about 20,000 plants in Florida.

University agronomists carrying on Florida corn research besides Leng include R. W. Jugenheimer, D. E. Alexander, J. B. Beckett and Earl Patterson.

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HDG:cm
2/9/59

ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS FEB. 11, 1959

1958 CORN CROP DISAPPEARS RAPIDLY

More Livestock, Wide Distribution Boost Use

Price prospects for corn have improved somewhat in recent weeks, largely because of an apparently high rate of disappearance during the October-December quarter.

Total disappearance of corn from October 1 to January 1 is estimated at 986 million bushels, or 24 percent more than the year before. The higher disappearance rate this year reflects more livestock and better distribution of the crop.

Hog numbers were up about 13 percent, and farmers were feeding to heavier weights before marketing.

The 1958 corn crop was evenly distributed--farmers in every area of the country had a good crop. More corn is used when the supply is widely held on farms than when it is piled up in some areas and scarce in others. Farmers feed more corn when they have it on their own farms than when they have to buy it.

The high rate of corn disappearance seems likely to continue. The 1958 fall pig crop, most of which is still on farms, was 17 percent larger than that of a year earlier. Farmers are feeding their hogs to heavier weights than usual, and they have reported intentions to produce 13 percent more spring pigs than they did last year.

Farmers are also feeding more cattle. The number in feedlots on January 1 was 11 percent greater than last year and 7 percent over the previous all-time high of two years ago. Cattle, too, are being fed to heavier weights than usual.

Chickens use more corn than any other class of farm animals except hogs. Broiler production is running 10 to 15 percent above 1958. The number of laying hens is up about 3 percent.

Stocks of corn on hand January 1 totaled 3,926 million bushels, up 9 percent from the year before. Farm stocks were estimated at 2,696 million, up 11 percent. The CCC had 634 million

(Continued)

bushels in its own facilities, 1 percent less than in the previous year. Stocks at terminals amounted to 97 million bushels, 5 percent less than 12 months before. Stocks at interior mills and elevators were figured at 499 million bushels, up 28 percent.

By January 1, farmers had placed 108 million bushels of the 1958 crop corn under price support loans. Last year they had put only 80 million under support by January 15.

The CCC has been selling more corn than it did last year. Sales from October 1 to January 29 amounted to 39 million bushels compared with only 11 million the year before.

Price supports now are $1.06 and $1.36 a bushel, 4 cents lower than a year ago. A single level of price support will apply to the 1959 crop, probably at about $1.12 a bushel.

The farm price of corn worked up to around $1.25 last year. It seems to have a chance of approaching to within a dime of that figure this year. In less than three months, 1959 crop prospects will begin to influence corn prices.

L. H. Simerl
Department of Agricultural Economics

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THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Sericea for Poor Soils

In those areas where soil fertility and organic matter make the use of alfalfa questionable, Sericea lespedeza shows promise as a long-lived perennial legume. Some of the best stands at the Dixon Springs Experiment Station were on slopes where erosion had taken 3 to 6 inches of topsoil.

Hay and Seed

Sericea makes little or no growth the first year. After that a hay crop and a seed crop or two hay crops may be removed each year. Hay yields are one to four tons a year if cut when 12 to 14 inches tall. Total protein in the hay runs about 13 percent compared with about 15 percent for alfalfa. Seed yields vary from 200 to 500 pounds an acre. As a hay crop Sericea has the advantage of curing much more rapidly than other legume crops harvested in the spring. Usually it can be cut one morning, raked in the afternoon and baled the following morning.

Seeding

Fertilizer requirements are the same for Sericea as for common lespedezas or other forage crops. Lime, phosphate and potash should be applied according to soil test. Good stands result from inoculated, scarified seed broadcast at 35 pounds an acre on a good, cultipacked seedbed. Spring plantings provide a conservation reserve cover.

Winter Hard on Alfalfa Seedings

Seedings of alfalfa made last fall at the Station have not fared so well as in many other winters. In most areas less than full stands can be expected for next summer's hay production. Here in sothern Illinois, Station Agronomist George McKibben has suggested that another seeding to thicken the stand might best be

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broadcast sometime in February or early March, or from May to July if the soil is moist. Early seeding usually partly eliminates the competition from early weeds.

The Arlington strain of Sericea is recommended because of its greater palatability to livestock and because it has less fiber than the common varieties of Sericea. If not used for hay or seed, Sericea would be excellent to use in seedings with grass because it is long-lived and resistant to disease and insect pests. Here is what McKibben suggests: 8 pounds of alfalfa, 4 pounds of red clover, 1 pound of ladino and 5 pounds of Korean lespedeza.

HAC:cm
2/12/59

for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Pine Outyields Hardwoods on Upland Soils

URBANA--Farmers who have sandy soils that are too poor for annual crops, pasture or hardwoods can grow pines there profitably.

J. J. Jokela and R. W. Lorenz, foresters at the University of Illinois, report the results of growth studies at Sinnissippi Forest near Oregon in Ogle county in the first issue of "Illinois Research," new publication of the Illinois Agricultural Experiment Station.

These studies show that sawtimber yields of eastern white pine stands on sandy soils can be at least twice those of upland, native hardwoods on good soil. Yields of pine over hardwoods on poor sites can be up to five times greater on short rotations up to 80 years, Jokela and Lorenz report.

Nearly one-quarter million acres of sandy soil in central and northern Illinois is considered too poor for annual crops, pasture and hardwoods, the foresters say. This land could produce a good crop of pine lumber.

In the study, sawtimber yield of the best 80-year-old mixed oak forest at Sinnissippi was 10,350 board feet an acre. The poorest was 3,950 board feet. These figures compare with the yield of 16,050 board feet for a 46-year-old eastern white pine plantation on a medium growth site that was considered too poor for hardwood growth.

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2/12/59

FOR IMMEDIATE RELEASE

Junior Chicken Contest Deadline Is February 28

URBANA--Illinois 4-H and vocational agriculture members with poultry projects will observe a deadline date of February 28 for entries in the 1959 Junior Chicken-of-Tomorrow Contest.

D. J. Bray, poultry specialist at the University of Illinois, reminds the junior growers that hatching dates for contest entries this year will be March 23, 24, 25 or 26.

An entry shall consist of 50 cockerel chicks of one breed, strain or cross, Bray says. Contestants may submit more than one entry so long as each is of a different breed, strain or cross. Contestants are urged to grow larger broods, but entries for final judging must come from the 50 banded chicks in each entry.

Local hatcherymen from whom the contestants buy the chicks will get the necessary wingbands and hatching certificates from Clarence Ems, poultry division of the State Department of Agriculture, Springfield. Birds must be banded as day-old chicks.

Contestants will deliver 10 live cockerels from the banded birds to Armour Creameries, Lincoln, between 8:00 a.m. and 2:00 p.m. CDT on May 20. The best eight cockerels will be considered in making the final placings.

Winning entries will be on exhibit starting at 8:00 a.m. on Saturday, May 23, at the Armour Creameries. The processing plant will pay prevailing broiler market price for all entries. A premium will be paid on the basis of one cent a pound for the total number of Grade A birds of each entry.

Cash prizes and ribbons furnished by the Illinois Poultry and Hatchery Federation will be awarded to winners in three sections, with trophies to the first five state winners. Ask your county farm adviser or your vocational agriculture teacher for full information and official entry blanks.

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RAJ:cm
2/10/59

FOR IMMEDIATE RELEASE

Suggest Hog Systems Be Under Roof

URBANA--Research at the University of Illinois indicates that automatic swine-finishing systems work best under roof.

Shelter over the exercise area permits year-round use. A roof keeps ice off the floor in winter and shades the animals in summer, says D. G. Jedele, extension agricultural engineer at the UI College of Agriculture.

Separate the feeding area from the resting area, Jedele suggests. The experiments with automatic hog-feeding designs at the University have shown that hogs will drop most of their manure outside the resting area if they are forced to move out for their feed.

Fewer than 100 pigs for each pen seems to work best, according to the experimental work. The farthest side of the resting area should be within 12 feet of the dunging area.

For high-pressure cleaning with water, the concrete floor of the dunging area should slope 1/2 inch per foot. The floor should have a uniform, dense finish with a non-slip surface. A rough surface hinders washing. Design the floor so that the waste material will wash over the outer edge and drop out of the stream of water.

Jedele suggests one waterer for every 25 hogs. He also suggests one feeder hole for every four hogs for normal feeding and one feeder hole for each hog on limited feeding.

The agricultural engineering specialist will give a full report on planning a swine-finishing building at Illinois Swine Growers Day in Urbana on March 5. He will also report on this research at each of the area Swine Days next month: March 10, Peoria; March 11, Cambridge; March 12, Rock Falls; March 13, DeKalb; March 16, Macomb; March 17, Jacksonville; and March 18, Mt. Vernon.

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RAJ:cam
2/12/59

FOR IMMEDIATE RELEASE

Release New Apple and Peach Varieties

URBANA--Two new fruit tree varieties developed and tested at the Illinois Agricultural Experiment Station are now available for propagation. The new apple variety, Blaze, and a new peach variety, Comanche, have undergone several years of trials in experimental orchards.

D. F. Dayton, University of Illinois horticulturist, says the characteristics of the Blaze apple are somewhat similar to those of Jonathan except that Blaze matures about three weeks sooner and is somewhat less acid. The brilliant red color of the fruit gave the new apple its name.

Blaze is recommended for trial planting to extend the fresh fruit season of Jonathan-type apples. The new apple has shown some resistance to natural infections of apple blotch, powdery mildew and fire blight.

The new peach, Comanche, matures about three days before Redhaven and about four weeks before Elberta in southern Illinois, according to J. B. Mowry, superintendent of the Illinois Horticultural Experiment Station at Carbondale.

Comanche is recommended for trial planting in place of Redhaven in the southern commercial peach regions. Its fruit is firm, yellow, medium-textured and relatively high in quality. The trees are moderately resistant to bacterial spot.

Information on sources of budwood for either of the new varieties is available from D. F. Dayton, Horticulture Department, University of Illinois, Urbana, or J. B. Mowry, Illinois Horticultural Horticultural Experiment Station, Carbondale.

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PBJ:nc
2/12/59

FOR IMMEDIATE RELEASE

44 Counties Meet 4-H Camping Fund Goal

URBANA--The number of Illinois counties that have met or gone over their 10-year 4-H camping fund goals has now reached 44.

W. D. Murphy, assistant state leader of farm advisers at the University of Illinois and chairman of the state 4-H camping committee, reports that the amount collected in the counties to date totals more than $661,000.

Much of this money was raised through the efforts of 4-H youth in sponsoring community-wide events. The goal toward which the counties are working is $807,000.

Money from the camping fund is used to maintain and develop the State 4-H Memorial Camp near Monticello and four district 4-H camps. A fifth district camp, Shaubena, near Galesburg, is supported outside the state camping fund.

The other district camps are Shaw-waw-nas-see near Kankakee, Western near Jacksonville, Southern near West Frankfort and White Eagle near Leaf River.

County 4-H members can use these camps for a very small fee. All of the camp areas are equipped with dining halls and group cooking facilities. They provide supervised recreation during the camping season.

The 4-H Memorial Camp near Monticello is the site of several statewide 4-H events, including the annual 4-H Junior Leadership Conference. Four top 4-H'ers from each county are named to attend this conference each year.

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PBJ:cm
2/10/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

High-Quality Consignment for Dairy Sale

URBANA--From early consignments and intense interest shown by breeders in the dairy calf club auction, the 11th annual sale looks as if it might be the best offering yet, says J. G. Cash, University of Illinois dairy extension specialist.

About 90 top-quality calves from the Holstein, Guernsey, Brown Swiss, Jersey and Ayrshire breeds will make up the sale at 11:00 a.m. on Saturday, February 28, at the College of Agriculture's stock pavilion.

Sale sponsor, the Illinois Purebred Dairy Cattle Association, intends for this sale to give 4-H and F.F.A. youngsters an opportunity to buy quality foundation animals at reasonable cost. Only bona fide 4-H Club and F.F.A. members from Illinois may buy calves. If a member cannot attend, he may designate someone else to purchase for him. But all purchasers must certify that the calves will be used only for 4-H or F.F.A. projects.

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2/16/59
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FOR IMMEDIATE RELEASE

To Test Minimum Tillage on Plastic Soils

URBANA--Agricultural engineers and agronomists at the University of Illinois College of Agriculture this year will cooperate in tests of minimum-tillage planting operations on some of the state's finely textured plastic soils.

Work will be supervised by Wendell Bowers, extension agricultural engineer, and Jack Baird, extension agronomist, members of the college staff. They will use a one-row plow-plant machine in several locations where large areas of soil stay wet in the spring and are subject to easy packing by tillage operations.

Machinery for the test will be furnished by John Deere Planter Works, Moline.

Bowers and Baird will see whether they can increase corn and soybean yields by planting on a plowed surface with this special machine. They will eliminate all tillage operations except possibly one cultivation.

Preparing a good seedbed in these soils with a once-over operation is hard to do, but not impossible, Bowers and Baird believe. Preliminary research work in 1958 with a converted conventional planting unit showed that the problem may be solved with some additional tillage in the row at planting time and more weight on the press wheel.

This year's tests, if successful, may point the way to some yield increases on fine-textured plastic soils and at the same time cut operating costs.

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RAJ:sl
2/16/59

FOR IMMEDIATE RELEASE

Test Liquid Protein Supplements for Beef Cattle

URBANA--Results of experiments at Kansas State College indicate that liquid protein supplements will not put faster or cheaper gains on beef cattle than soybean meal.

G. R. Carlisle, extension livestock specialist at the University of Illinois College of Agriculture, reports two Kansas tests that compared soybean meal with a liquid supplement containing molasses, urea and phosphoric acid.

In one of the tests, a third lot of cattle was fed a liquid supplement that contained ethyl alcohol in addition to the above ingredients. This test lasted 252 days. The heifers on the test were full-fed sorghum silage for the first 112 days and silage plus a full feed of sorghum grain for the last 140 days.

Average daily gain in this test was 1.62 pounds at a cost of $24.27 for the heifers fed soybean meal, 1.63 pounds at a cost of $27.64 for those getting liquid supplement free choice and 1.69 pounds at $27.22 for those getting alcohol in addition.

In the second trial, heifers were full-fed sorghum silage for 100 days. One lot was fed a pound of soybean meal and two pounds of sorghum grain a day, while the other lot was fed liquid protein supplement free choice.

Average daily gain of the soybean meal lot was 1.44 pounds at a cost of $11.71 compared with a daily gain of 1.18 pounds costing $15.71 for the lot fed liquid protein supplement free choice.

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2/16/59

FOR IMMEDIATE RELEASE

Plan Ahead to Prevent Baby Pig Losses

URBANA--A University of Illinois veterinarian says there is no substitute for sanitation, planning and elbow grease when it comes to preventing baby pig losses.

Dr. P. D. Beamer of the College of Veterinary Medicine states that the average swine grower loses one-third of his pigs before they reach market age. The American Foundation for Animal Health says baby pig losses are costing U. S. swine growers nearly half a billion dollars a year.

Dr. Beamer points out that most of these losses could be prevented. The important thing to remember is that many of the baby pig problems are similar. It is therefore best to have a veterinarian make a diagnosis.

Some common causes of baby pig losses and the steps farmers can take to avoid them are outlined by Dr. Beamer as follows:

1. Anemia--due to shortage of iron in blood. Place uncontaminated dirt in pig creeps, or sprinkle iron salts solution over dirt. You can also give soluble iron salts by mouth or use injectable iron.

2. Scours--a type of scours has been reported that seems to be caused by the toxic quality of sow's milk. When this condition appears, hand-feed pigs on enriched cow's milk.

3. TGE (transmissible gastroenteritis)--the most rapidly fatal baby pig disease existing in this country today. It is caused by a virus. The exact means of perpetuation is not known, but it may

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be transmitted from an infected sow to her newborn pigs. So far there is no medical treatment for TGE. Prevention depends on strict measures to maintain a closed herd. Buying replacement stock that is 100 percent clean is the surest way of keeping TGE off the farm. Also, keep visitors away from breeding animals and young pigs.

4. Rickets--caused by lack of calcium or vitamin D in sow's milk. Be sure sow rations contain needed calcium, phosphorus and vitamin D.

5. Baby pig disease (hypoglycemia)--caused by sugar deficiency. Feed pregnant sows a balanced ration. Glucose injections may help to save pigs.

6. Parasites--keep pigs out of old hog lots and buildings. Raise them on pasture in sanitary surroundings.

7. Erysipelas--in areas where this disease is a problem, have pigs vaccinated soon after birth.

8. Cholera--have all pigs vaccinated around weaning time, as the disease is a constant threat to the hog crop.

Another step in saving baby pigs is to provide heat during the first few days after farrowing. This is especially important for early-farrowed pigs, according to Dr. Beamer.

Many baby pig diseases can be traced back to faulty feeding of the sow. If she does not get the right rations, she cannot nourish her pigs properly. If swine growers will keep all of these points in mind, says Dr. Beamer, they'll save many pigs and much money.

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JER:sl
2/16/59

ILLINOIS FARMERS' OUTLOOK LETTER

BEEF CATTLE NUMBERS REACH NEW RECORD HIGHS

URBANA, ILLINOIS FEB. 18, 1959

Range Herds Were Rebuilt in 1958

Farmers and ranchers built their beef cattle herds up to record levels in 1958. The beef-type cattle and calves on farms and ranches on January 1 of this year are officially estimated at 64,025,000 head. This number is 7 percent more than the year before and 3 percent over the previous record set three years before.

The number of cattle kept primarily for dairy purposes declined in 1958, for the fifth consecutive year. The number on farms January 1 totaled 32,826,000 head, 2 percent less than the year before. Milk cow numbers declined 3 percent, to 21,606,000 head, the smallest number since 1921.

Total cattle numbers on January 1 were estimated at 96,851,000 head. This was 4 percent more than one year ago and about the same as the record high of three years ago.

All classes of beef-type cattle increased substantially in 1958. Cow numbers increased 5 percent, to 25,584,000 head, about the same number as three and four years ago.

Beef-type heifers one to two years old increased 12 percent, to 6,822,000 head. This number was 5 percent more than the previous record high set four years before.

Beef-type calves under one year of age increased 7 percent in 1958, to 19,755,000 head. This number was 4 percent over the previous record high of four years earlier.

The number of steers over one year old on farms and ranches increased 8 percent, to 10,213,000 head. This number was 7 percent more than the previous record high for steers set three years earlier.

The increase in cattle numbers in 1958 was concentrated west of the Mississippi River. Biggest increases were in the central and southern Great Plains--Nebraska, Kansas, Texas and Oklahoma.

Texas reported 8,510,000 head of cattle and calves on January 1, or 10 percent more than the year before. Figures for the different areas of this huge state are not available, but most of

the increase was no doubt concentrated in the western part of the state, where the drouth of the mid-1950's was most severe. The Texas total was only 4 percent short of the record high of six years ago.

Nebraska claimed 4,961,000 head of cattle on January 1. This was 7 percent more than the year before and only 1 percent short of the all-time high for that state. Considering beef-type cattle only, the number was at a record high.

Biggest percentage increase in cattle numbers for any state was 13 percent, reported by Kansas. The number on Kansas farms and ranches on January 1 was estimated at 4,476,000 head, or 3 percent more than the previous record number held from 1952 through 1954.

Cattle numbers in Oklahoma increased 12 percent in 1958, to 3,313,000 head. This number was only 1 percent short of the previous record set five years ago. Considered alone, beef cattle in Oklahoma numbered 2,712,000 head, or 4 percent over the previous record set in 1954.

L. H. Simerl
Department of Agricultural Economic

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AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Lambing season is in full swing. Several hundred baby woolies are already on hand at the sheep barn to welcome the first breath of spring and to test the juicy taste of small-grain pastures. About half of the ewes lambing so far have produced twins for an over-all lambing percentage of better than 150.

Confinement

Sheep Herdsman Gene Lauderdale is going a long way toward getting a good lamb harvest by seeing that each new lamb gets off to a good start. Gene takes no chances that the ewe will not claim her lamb or perhaps claim only one of a set of twins. As each new birth occurs, mother and lambs are placed within the confines of a 4' x 4' area fenced by light hinged hurdles. He can then watch both the new mother and the lambs closely for the first two or three days.

Early Care

At about a week to 10 days of age, the lambs will be given access to a creep feeder. Creep rations are important to all lambs, but they are especially valuable in pushing twin lambs to earlier market.

Another weekly job is to dock tails and castrate. In addition, for the past two or three years all lambs have been vaccinated against sore mouth at the same time they were docked and castrated. Sore mouth is a virus infection which, unless checked, will go through the entire lamb population. It causes sore, swollen lips and gums that break and then scab, finally clearing up in three to four weeks. Three or four weeks of infection, however, reduces nursing and feed intake, causing lambs to become thin when they should be fleshing. Vaccination will prevent the disease. With a history of sore mouth on the farm, we recommend vaccination.

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Teaching Grades

Curt Taylor, Pope-Hardin county farm adviser, reports that local lamb raisers have learned to be good judges of lamb grades. To prove his point, Curt uses figures from the lamb pools held during the past three years on the Station. In 1956 only 42 percent of the lambs that were marketed were of prime or choice grade. In 1957 this percentage increased to 75, and last year 84 percent of the lambs were prime or choice. Lamb producers have learned the knack of grading by watching the official grading of their own lambs.

HAC:rm
2/18/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Store Gasoline and Kerosene Safely

URBANA--Carelessness in using and storing gasoline, kerosene and other petroleum products causes the loss of about 500 lives and an average fire loss of more than $5 million on farms in the United States each year.

Gasoline and kerosene, as well as other flammable liquids, are always potentially dangerous, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture. But you can safeguard your life and property against the danger of explosion and fire by storing and handling them safely.

Here are some precautions from the Illinois Rural Safety Council that will help to prevent hazards in storing and handling flammable liquids:

1. Never pour kerosene into a stove or furnace that is still warm from a previous fire.

2. If you have to do home dry-cleaning, do it out of doors and use a nonflammable cleaning fluid.

3. Use care in handling insecticide sprays, paints and lacquers.

4. Store gasoline in an underground tank or a shaded steel drum at least 40 feet away from all buildings. Never handle gasoline or kerosene in an open container.

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2/19/59

FOR IMMEDIATE RELEASE

Plan Mechanization Exhibit for Festival

URBANA--Farm and Home Festival visitors at the University of Illinois on April 2, 3 and 4 will take a look into the future of farm equipment and machinery.

One complete exhibit area in the Agricultural Engineering tractor laboratory will be used to show Festival guests the research that is going on today to reduce farm labor needs and increase profits in the future with better equipment and machinery.

"Research for Tomorrow" exhibits in the area of "Mechanization" will highlight research on tractors, minimum tillage, hay pelleting and fertilizer application. They will tell the story of how farmers will need to change their future operations to keep up with trends in farm size and productivity.

Search for power, economy and ease of maintenance will be shown in the tractor exhibit. This display will feature research equipment used to help develop better air cleaners for tractors and better carburetor systems for increased economy and power.

Feeding trials with pelleted hay have shown some spectacular improvements in rates of gain. The hay-pelleting exhibit will show present research aimed at providing information for design of machines to make pelleting a field operation on the average Illinois farm.

A movie and display will show the many advantages of reduced tillage for corn and soybeans and the various ways in which this practice can be used with regular farm equipment.

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Applying anhydrous ammonia fertilizer at half the usual price will be the highlight of an exhibit showing present research on new equipment for fertilizer application. Farmers will probably use more fertilizer in the future. Narrow margins of profit will require efficient ways to apply it.

Over-all farm operation changes tomorrow and in the future will be forecast in a panoramic view of farm management--1975 style. This exhibit will show the effects of changing size of farms, methods, mechanization and other factors.

Finally, one of the possible new ways to handle farm feeds--a pneumatic pressure system--will be shown in an action model. A full-sized feed-handling system will be set up in another exhibit area.

College of Agriculture staff members will be on hand at all of the exhibits to answer specific questions about your own farm operation and to suggest how you can make changes to fit your own system and situation.

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2/18/59
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FOR IMMEDIATE RELEASE

Hearings Favor Minimum Wage for Farm Workers

URBANA--Support for a minimum wage for farm workers is growing, according to David E. Lindstrom, University of Illinois rural sociologist.

While in Washington, D. C., recently, Lindstrom attended the public hearing of the National Advisory Committee on Farm Labor. This hearing concluded that farm workers should be protected by a minimum wage law similar to that for industrial workers and that all government security and protection measures for industrial workers should apply equally to farm workers.

The proposed minimum wage was not specifically named, but the suggested amount was not less than 70 cents and preferably 90 cents an hour, Lindstrom reports. It was also felt that this rate should apply to all farm labor wages in all parts of the United States.

Supporting the minimum-wage legislation for farm workers were Senators Kennedy, Humphrey, Douglas and Eugene McCarthy, Secretary of Labor Mitchell, most organized labor groups, a group of 10 members of the House of Representatives and John M. Seabrook, president of Seabrook Farms Company in New Jersey.

Members of the National Advisory Committee on Farm Labor were particularly concerned because thousands of children under 16 years are working illegally on farms during school hours. Many of these children have been seriously injured in farm work. In only a few states is agricultural labor included in workmen's compensation laws.

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Testimony of farm workers revealed that they have no guarantee of a job and no unemployment compensation. Workers brought in from Mexico are guaranteed a minimum wage by international agreement, while domestic workers have no such guarantee.

Labor union leaders indicated support for minimum wages for farm workers and also for farm labor unions that could engage in collective bargaining and provide the services that industrial workers' unions provide. They calculate that there are two million workers in agriculture who might be included in such unions, Lindstrom reports.

Opinion was also expressed that minimum wages, unemployment compensation and unionization of farm workers would improve the competitive position of family farmers with large operators.

Secretary of Labor Mitchell has announced plans to make a nationwide survey of farm labor conditions as a basis for recommending legislation.

Lindstrom feels that even if a minimum wage of 90 cents an hour were established for farm workers, it would probably not change the wages of workers on most family farms employing only one or two men.

Members of the National Advisory Committee on Farm Labor include ex-Senator Frank P. Graham and A Philip Randolph, president of the Sleeping Car Workers, co-chairmen; Louis H. Bean, Helen Gahagan Douglas, Monsignor George C. Higgins, Herbert H. Lehman, Mrs. Franklin Roosevelt and Norman Thomas.

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/19/59

FOR IMMEDIATE RELEASE

Pelleting Improves Cereal Grain Rations for Swine

URBANA--Pelleting improves the feeding value of cereal grains substituted for corn in the rations of growing-finishing pigs.

But none of these grains, even when pelleted, equaled the feeding value of corn for pigs in tests at the University of Illinois, according to A. H. Jensen, swine researcher at the UI Agricultural Experiment Station.

Results of pelleting oat rations in Illinois experiments have varied, Jensen reports. In most of the studies where oats were substituted for corn in swine rations, pelleting the oats did not improve the feeding efficiency of the ration enough to pay for the extra cost of pelleting.

Pelleting did improve the feeding value of wheat and milo to some extent, and of barley about 15 percent. But none of these cereal grains, even in the pellet form, produced gains to equal those put on the pigs by corn.

Pelleting did not improve rates of gain on the corn-soybean rations. However, Jensen reports that pelleting does make the rations easier to handle, particularly by reducing the dustiness of ground wheat and milo rations.

You can hear complete results of this experimental work and other research reports on swine nutrition and feeding at the 1959 Illinois Swine Growers Day program in Urbana on Thursday, March 5. All Illinois swine growers are cordially invited to attend.

Jensen will also discuss results of this research at the area Swine Day programs around the state later in March. Ask your county farm adviser about the date and place of the area Swine Day nearest you.

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/19/59

FOR IMMEDIATE RELEASE

Illinois 4-H Foundation Meets on March 6

URBANA--Members of the board of directors of the Illinois 4-H Foundation will hold their annual meeting on Friday, March 6, at the University of Illinois.

Main concern of the board at this meeting will be to get a summary report of 1958 Foundation activities and to plan the 1959 program.

O. F. Gaebe, state leader of agricultural 4-H Clubs and executive secretary-treasurer of the Foundation, reports a balance of $13,188 at the start of this year. Of this amount, $5,191 is for designated programs and the other $7,997 is undesignated and available for use as directed by the board of directors.

In its three-fold program, the Illinois 4-H Foundation supports 4-H Club work through citizenship development, leadership training and recognition and training of 4-H Club members. One of its main programs of financial support is the International Farm Youth Exchange program, Gaebe reports.

Last year the Foundation helped to support 16 district training meetings for 4-H Club leaders with an attendance of 1,721, five district tractor training clinics for leaders and a state leaders' recognition and training meeting.

Foundation funds were also used to send four Illinois outstanding 4-H Club members to the National 4-H Conference, five to National 4-H Club Congress and 10 to National Safety Congress with expenses paid. Expenses were also paid for dairy, poultry, livestock,

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vegetable judging and vegetable demonstration teams competing in national contests, 14 members attending the National Dairy Show and Congress, four attending the National Poultry Fact Finding Conference, three to the American Institute of Cooperation, meetings of other youth organizations and some of the donor organizations.

In addition, the Foundation provides many services to the state 4-H Club program by acting as holder of scholarships won by members and contributed by various donors. It also provides banking facilities and audits the accounts involving funds used for 4-H Club awards.

The Foundation was founded in 1954 as a non-profit organization to promote and aid the 4-H Club program. Gifts to the Foundation are deductible on income tax reports.

Members of the Foundation board include Robert Anderson, Cities Service Company, Bloomington; Miss Lulu Black, state leader of home advisers, Urbana; Curt E. Eckert, fruit grower, Belleville; Mrs. Fred Francis, Wilmington; E. D. Griffin, Allied Mills, Inc., Chicago; Mrs. Richard Herm, Peoria; T. M. James, Standard Oil Company, St. Louis; Trevor L. Jones, Chicago and Midland Illinois Railway Company, Springfield; W. G. Kammlade, associate director of the Cooperative Extension Service, Urbana; M. C. Lockard, National Bank, Mattoon; and C. M. McCauley, Mt. Vernon. Also Mrs. Horace Smith, Illinois Home Bureau Federation, Greenville; Hugh E. Muncy, Illinois Retail Merchants Association, Chicago; E. D. Peterson, State Association of Farm Advisers, Hillsboro; Louis Ratzesberger, Illinois Canning Company, Hoopeston; C. A. Snavely, Illinois Retail Farm Equipment Association, Peoria; William Kuhfuss, Illinois Agricultural Association, Chicago; A. F. Stephens, Gulf, Mobile and Ohio Railroad, St. Louis; Miss Laura Heddleson, Illinois Home Advisers Association, Paris; James Thomson, Prairie Farmer, Chicago; D. G. Womeldorff, Public Service Company, Dixon; and Paul Woodson, Woodson-Fennewald Livestock Commission Company, National Stockyards.

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2/19/59

FOR IMMEDIATE RELEASE

Economists Tell How to Add $1,000 to Farm Income

URBANA--Illinois farmers can add $1,000 to their farm income in several ways, according to the latest calculations of University of Illinois agricultural economists. These economists have figured out six choices for expanding livestock and poultry enterprises that could add $1,000 net income annually to the farm business, based on current prices.

Among livestock enterprises, these choices are 5 dairy cows, 13 beef cows, 37 yearling steers in drylot, 20 litters of hogs, 800 laying hens or 72 ewes and lambs.

However, the economists emphasize that with additional units of livestock a farmer must be ready to provide more feed, more labor and more investment, and he must also be ready to incur additional expense.

Farmers who choose to add yearling steers or hogs will need about 2,000 more bushels of corn. The laying hens will need only about 960 more bushels of corn, the beef herd about 520 bushels, dairy cows about 300 bushels and sheep only 180 bushels.

On the other hand, the hay and roughage needs will be highest for the beef herd, yearling steers, sheep and dairy cows.

Additional hours of labor will vary with choice of enterprise. The hens will require about 800 more hours of labor per year, the dairy cows 625 hours, beef herd 520 hours, hogs 450 hours, steers 444 hours and sheep 432 hours.

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Investment and expenses will vary even more widely than labor. The economists figure that hens and sheep will require about $1,800 more investment and expenses. The dairy cows will take $2,000 and hogs $2,350. The beef herd will require $4,875 and the yearling steers $9,000.

This idea of how to add $1,000 to your farm income will be featured among the many exhibits at the Farm and Home Festival at the University in Urbana on April 2, 3 and 4. University staff members will be available to answer visitors' questions. More than 100 exhibits in six major areas along with an up-to-the-minute speaking program, Town and Country Art Show and Town and Country Talent Show will round out this year's Festival program.

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2/18/59
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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Test High-Moisture Corn for Growing-Finishing Pigs

URBANA--High-moisture corn was no better than dry corn fed to pigs in an experiment last spring at the University of Illinois.

D. E. Becker, swine researcher at the UI Agricultural Experiment Station, says this study was made to find the nutritive value of high-moisture corn stored in experimental wooden-stave silos.

In this study 32 crossbred pigs weighing about 80 pounds at the start were fed in one-fourth-acre alfalfa plots for 49 days.

Gains averaged 1.44 pounds a day for the pigs fed corn harvested and ensiled in a wooden silo at 27 percent moisture, 1.37 pounds a day on corn harvested at 27 percent moisture and ensiled in a wooden silo at 40 percent moisture after water was added, 1.35 pounds a day on corn harvested at 13.5 percent and ensiled in a wooden silo at 40 percent moisture after water was added and 1.41 pounds a day on corn harvested at 13.5 percent moisture and stored in a bin.

Some moldy corn was found at the top and sides of the ensiled corn, Becker says, but feeding it did not seem to have any effect on the pigs in this test.

Becker will give a complete report on this test at the annual Illinois Swine Growers Day in Urbana on Thursday, March 5. This research report will also be a feature, along with others, on the morning program at the seven area Swine Days throughout the state in March. Dates and places of these days are March 10, Peoria; March 11, Cambridge; March 12, Rock Falls; March 13, DeKalb; March 16, Macomb; March 17, Jacksonville; and March 18, Mt. Vernon.

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2/23/59

FOR IMMEDIATE RELEASE

Hypoglycemia Causes Deaths in Newborn Pigs

URBANA--A University of Illinois veterinarian today urged swine growers to examine newly born pigs this winter and spring to be sure they have an adequate milk supply.

Dr. Jesse Sampson of the College of Veterinary Medicine says hypoglycemia, resulting from starvation, sometimes causes the death of entire litters of baby pigs. It occurs when sows fail to produce milk or cease production soon after farrowing, or when pigs stop nursing because of scours or digestive upsets.

Hypoglycemia was first reported by University of Illinois veterinarians in 1941. Dr. Sampson and other research workers have shown through research that starvation in newborn pigs causes a rapidly fatal hypoglycemia or low content of sugar in the blood. For example, if healthy newborn pigs are taken from the sow immediately after birth and given no milk or other food except water, severe hypoglycemia and death usually occur in 48 to 72 hours.

If the pigs are about one week old before they are taken from the sow and are allowed no food except water, a much longer time is needed to cause a dangerous decrease in the content of sugar in the blood. This condition has been referred to as baby pig disease because most cases are observed in litters of pigs less than one week of age.

Sows whose litters develop hypoglycemia often look and act healthy at farrowing time, points out Dr. Sampson. The pigs also appear healthy at birth and ordinarily show no signs of hypoglycemia until

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they are about 24 to 36 hours old. Nearly all of the sick pigs die in 24 to 36 hours after the first signs are observed.

Since it is difficult to know which pigs will develop hypoglycemia, Dr. Sampson advises examining each litter carefully every day during the first week after farrowing for signs of rough hair, lack of desire to nurse, listlessness and lowered vitality.

Chilling may increase the danger of hypoglycemia. Dr. Sampson says the use of heat lamps will prevent chilling and conserve sugar needed for energy. This will allow more blood sugar in the pig's system to help prevent hypoglycemia. When pigs show signs of hypoglycemia, veterinarians inject a sugar solution to restore the blood sugar level.

It is just as important to watch the sows for evidence of sickness as to watch for signs in the litters. Since there are many causes of deaths of newborn litters, Dr. Sampson suggests calling a veterinarian when signs of sickness appear, because both sows and pigs may require special treatment.

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2/23/59

FOR IMMEDIATE RELEASE

"Dial Your Hog Price" Featured Among Festival Exhibits

URBANA--With the aid of a unique price dial developed by University of Illinois agricultural economists, a farmer can find out about hog price trends over short and longer periods.

Built for the coming Farm and Home Festival on April 2,3,and 4, the dial shows a farmer how changes in the number of hogs produced will affect the prices that he can expect the next year. He can also see how continuing hog production at this same level would likely affect prices over periods of three and five years or more.

For example, taking the past 13 years, the dial shows that the average annual pig crop of about 90 million head brought an average price of around $19 at Chicago. During this period the largest pig crop was about 100 million head, or an increase of about 11 percent. This sharp increase drops the price pointer down to around $14.

However, if farmers continued to produce hogs at this high level for three years, the dial shows that the price would probably work up to about $16. After five years, it would probably recover still more--to around $17.50.

C. P. Schumaier and Eric Berg, who developed the price dial, explain that with low hog prices consumers would realize how much of a bargain pork was and people would buy more. As demand picked up, prices would gradually move higher.

On the other hand, the price dial shows that hog prices would climb to around $24 if hog producers cut back to an annual pig

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crop of around 80 million head. But if this low level of production continued for several years, consumers would gradually turn to lower priced meats. As demand dropped, prices would fall even though supplies were lower.

Schumaier and Berg believe the main point shown by the price dial is that over a period of time an increase in the pork supply would increase consumption more than it decreased prices, and the result would be higher incomes for hog producers.

The hog price dial is only one of more than 100 exhibits in six major areas scheduled for the 1959 Farm and Home Festival at Urbana. In addition, a high-interest speaking program, a Town and Country Art Show and a Town and Country Talent Show are featured. Classrooms, laboratories and greenhouses will also be open for inspection.

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2/23/59

FOR IMMEDIATE RELEASE

Recommends New Vegetable Varieties

URBANA--Several new vegetable varieties, in addition to numerous older varieties, are recommended this spring by Norman F. Oebker, University of Illinois vegetable crops specialist.

Oebker reports that two new sweet corn varieties are on the market now. The first, Goldcup, has excellent eating quality, but its ears are not too large. The second, Northrup King 199, has large ears in addition to good eating quality. Oebker recommends the latter variety for both the home gardener and the commercial grower. However, he advises that commercial growers raise it only for selling at roadside stands, where the seller can explain that its large size does not interfere with its eating quality.

As for tomatoes, the specialist suggests planting the variety Glamour. Although this variety is several years old, it is one of only a few that resist cracking.

For more detailed information on Oebker's recommendations, write to the Department of Horticulture, 124 Mumford Hall, and ask for a copy of the 1959 Vegetable Variety Recommendations.

The Garden Guide is another publication that is available to Illinois residents. In addition to discussing varieties, it contains general gardening information, such as disease and insect control.

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2/23/59

SPECIAL TO SOUTHERN ILLINOIS DAILIES FOR IMMEDIATE RELEASE

UI Appoints New Horticulture Extension Specialist

URBANA--A new horticulture extension specialist has been appointed by the Illinois Agricultural Extension Service to serve Southern Illinois.

J. Wilson (Bill) Courter, a Rutgers University graduate, recently assumed his new duties as vegetable crops and small fruits extension specialist.

Courter received his B.S. degree in horticulture in 1957 and his master's degree in 1958. During his college career he was awarded several scholarships and was a member of several honor societies, including Alpha Zeta.

Courter is a native of Cape May Courthouse, New Jersey. This is his first position since his graduation. He will work closely with Norman F. Oebker, vegetable crops extension specialist, and Frank Owen, fruit crops extension specialist.

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ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS FEB. 25, 1959

FLOODS HIT HOG MARKETS, TOO

Prices Hold Up Well Under Crest of Supply

Hog prices trended downward through January and most of February. By late February, prices at central markets were averaging about $15, or $5 lower than one year before. While the price decline is drastic, it is not excessive in view of the great increase in supplies that farmers have shipped to market.

Marketings of hogs and production of pork tell the story. During the four weeks ended February 7, pork output under federal inspection ranged from 20 to 22 percent greater than the year before. For the week ended February 14, it was up 29 percent. And in the first four days of the week ended February 21, market receipts at 12 leading markets were 40 percent greater than they were a year ago.

The large market supplies of recent weeks were not unexpected. The fall pig crop report had shown that on December 1 farmers had 22 percent more pigs 3 to 6 months of age than they had the year before. We expected farmers to ship these hogs during January, February and March.

In actual numbers and pounds, market supplies of hogs and pork have been no larger in recent weeks than they were in early December. Supplies this year have just continued at early-December levels instead of declining normally as they did last year.

Figuring ahead. The big months of fall farrowings were August and September as usual. The percentages of sows farrowing by months were as follows: June, 14; July, 15; August, 24; September, 26; October, 14; and November, 7. We would guess that the peak of farrowings was around the first of September.

Most farmers probably take about seven months to get hogs up to average market weight, which recently was around 235 pounds. Thus market receipts may continue large during March, but should decrease thereafter.

(Continued)

The winter break in hog prices may bear some good fruit. It may cause some farmers to hold down their breeding for 1959 fall litters. But profit margins have recently been above average, so some increase in fall farrowings is probable.

Fall market. Prospects for the fall market continue to be fairly good. It is true that farmers have reported intentions to increase the 1959 spring pig crop by 13 percent. And the actual increase may be a little more. But, even so, the market supply in prospect for the last half of this year is only 12 percent above the average of the past five years, and nearly half of that increase has been offset by the increase in population.

Frequent comparisons have been made between this year and 1955, when hog prices went off to $10.

Market supplies this fall may be 2 to 4 percent larger than they were four years ago. But this supply will be spread more uniformly over the marketing season. The quality of pork will be better. The supply of beef will be smaller. Population will be nearly 7 percent greater. And packers and retailers will be much better prepared to handle the flow of hogs and pork than they were at the end of 1955.

L. H. Simerl
Department of Agricultural Economics

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard

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AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

March - April, 1959

ruary 28- ch 7	National 4-H Club Week
ch 4	Saline County Greenhouse Meeting. Farm Bureau Building. Harrisburg.
ch 4	Williamson County Greenhouse Meeting. Farm Bureau Building, Marion.
ch 5	Union County Area Vegetable Growers' Meeting. Farm Bureau Building, Jonesboro. 7:30 p.m.
ch 5	Swine Day. University of Illinois, Urbana. Program begins with tours of UI Swine Farm at 8:00 a.m. Formal program begins at 10:30 a.m. in the University Auditorium.
ch 10	Peoria Area Swine Day. Youth Center in Exposition Gardens, 9:30 a.m.
ch 10	Farm Machinery Day. University of Illinois Stock Pavilion, Urbana.
ch 10	Johnson County Area Spray Meeting. New Burnside, 7:30 p.m.
ch 11	Cambridge Area Swine Day. Community Building, 9:30 a.m.
ch 12	Rock Falls Area Swine Day. Armory Building, 9:30 a.m.
ch 13	DeKalb Area Swine Day. Northern Illinois University Auditorium, 9:30 a.m.
ch 13-14	Mississippi Valley Spring Barrow Show. Mississippi Valley Fairgrounds, Davenport, Iowa.
ch 16	Macomb Area Swine Day. Macomb Presbyterian Church, 9:30 a.m.
ch 17	Jacksonville Area Swine Day. High School Auditorium, 9:30 a.m.
ch 18	Mt. Vernon Area Swine Day. High School Auditorium, 9:30 a.m.
ch 18	Henderson County Area Melon and Tomato Growers' Meeting. Lomax, 7:30 p.m.
ch 24-25	Dixon Springs Sheep Shearing School. Robbs. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
ch 25-26	Dairy Technology Conference. University of Illinois, Urbana.
ch 26-27	Dixon Springs Sheep Shearing School. Robbs. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
ch 30-31	Sheep Shearing School. Seneca. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)

March 31	Macon County 4-H Vegetable Judging and Grading Meeting. Farm Bureau Building, Decatur, 7:30 p.m.
April 2-4	FARM AND HOME FESTIVAL. University of Illinois, Urbana.
April 4	Agriculture Student Guest Day. University of Illinois. Registration begins at 9:00 a.m. in Gregory Hall.
April 4	Home Economics Hospitality Day. University of Illinois. Registration begins at 8:30 a.m. in Lincoln Hall.
April 4	Rural Youth Day, University of Illinois, Urbana. Rural Youth meeting to begin at 4:00 p.m. in Illini Union.
April 6-7	Sheep Shearing School. University of Illinois, Urbana. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)
April 9	Feeder Pig Sale. Benton.
April 10	Dixon Springs Bull Sale. Robbs.
April 18	Land O' Lincoln Livestock Judging Contest and School. State Fairgrounds, Springfield.
April 21-22	Grain Dealers' Management Conference. University of Illinois, New Law Building Auditorium.
April 29	Jackson County Area Feeder Pig Sale. Murphysboro.
April 30	Dixon Springs Feeder Pig Sale. Robbs.

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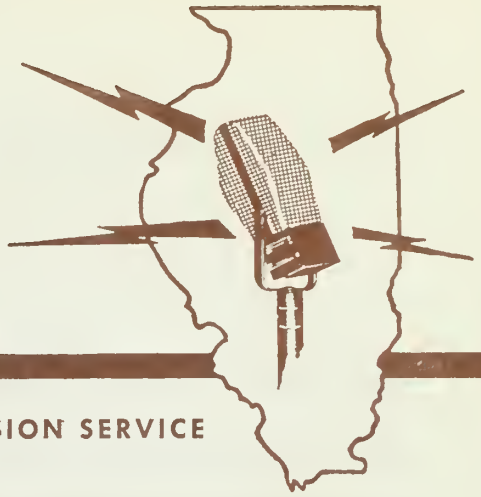
Radio News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE



FOR IMMEDIATE RELEASE

Don't Be A Workshop Casualty

URBANA--Do you know someone who nearly always has a finger bandaged from a minor workshop injury? Such injuries aren't often serious if treated properly, but they can be mighty annoying.

Chances are that this fellow is violating at least one of the three simple rules of using hand tools safely, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Too many of us think only of power tools as being dangerous. But a misguided hammer can still smash a finger, and a bit of flying steel from the top of a "mushroomed" punch or chisel can put out an eye.

You can't do a good job without the proper tools. Using pliers for a hammer usually not only fails to get the job done, but can cause an injury. The same thing goes for misusing all kinds of hand tools.

Once you know and get the proper tools, keep them in good condition. If the tool is meant to cut, see that it is sharp. It's usually the dull tool--which takes more pressure--that slips and cuts you.

Even the best tool may be responsible for an injury if it's not used right. Have good tools and use them properly, along with some good common sense. Then you'll be working the safe way.

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FOR IMMEDIATE RELEASE

$40,000 Grant Supports Mammary Tissue Study

URBANA--A $40,000 National Science Foundation grant has been made to the University of Illinois to support work of the world's only laboratory growing mammary gland tissue from cows to learn secrets of how milk is made.

The three-year grant will supplement College of Agriculture funds for research started three years ago by Bruce L. Larson in the Department of Dairy Science. This is the first outside grant to help Larson's tissue culture studies.

Larson is studying mammary tissue cells to learn how hormones and other factors control milk production. Some cell cultures in his laboratory are still living a year after being removed from a cow. Some have secreted tiny amounts of milk after two or three months.

Many factors affect the tissues in a cow. In the culture bottles of his laboratory, Larson can closely control everything affecting the cells.

Cells grow in a thin film along the bottom of culture bottles. There they can be examined under high-powered microscopes. They are kept alive by food elements in liquid surrounding them.

Products from the cells are carefully analyzed. Among these Larson has found a type of sugar that is present only in milk, proving that the cells are carrying on their normal functions.

Infinite patience is required in this work. Growth of the cultures is slow. These body cells require up to four days to divide, whereas bacteria commonly divide in 20 minutes.

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FOR IMMEDIATE RELEASE

Study New Ways to Make Hay Wafers and Pellets

URBANA--Agricultural engineers at the University of Illinois are looking for ways to make hay wafers with less power.

Wafers may be better than pellets for hay, say George Pickard, Walter Roll and John Ramser, the research agricultural engineers at the Illinois Agricultural Experiment Station.

A wafer-making process, rather than pellets, may eliminate the time- and power-consuming grinding process, they say. Wafers may also avoid the pre-forming drying process that pellets require and may also get away from the present extrusion process that is so wasteful of power.

Studies at Illinois have been made with a closed-end cylinder press that makes wafers from either long or chopped hay. The agricultural engineers have been able to make a wafer 3 1/4 inches in diameter and 1 inch thick with a power output of about 3 3/4 horsepower for each ton-hour.

This power supply compares with 20 to 30 horsepower needed for each ton-hour by pelleting and wafering machines working on the extrusion process.

Final savings of power in field wafering machines probably won't be that much, the researchers say. But they look forward to saving at least half of the power needed by the extrusion process.

The search right now must be for the size and shape of pellet or wafer (1) that animals will eat conveniently and easily and (2) that

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can be produced fast enough in a simple and economical machine with acceptable power requirements.

Experimental wafering equipment at the Illinois Station so far has been designed to find out how much pressure is needed to form hay wafers, to study how durable they are and how well they can be dried and to find out how these properties are affected by hay moisture and maturity, length of stem and size and shape of wafers.

In these studies, the researchers used alfalfa hay in various stages of maturity, at different moisture levels and in different forms (chopped and long, crushed and uncrushed). With the machine they studied effects of varying pressure, time of pressure hold and size and shape of the wafers.

Experimental results to date show that wafers made from low-moisture hay in a closed-end pressure machine will stick together best after thorough crushing and interlacing of stems and leaves. Pressure alone has not been enough to make permanent wafers of high-moisture hay.

More pressure is needed to form permanent wafers as the hay matures. But less pressure is needed to form high-density wafers as the amount of moisture in the hay is reduced. Since it is desirable to wafer hay at high moisture content to save leaves, some way must be found to form wafers under these conditions.

The research results so far have not uncovered any particular problems with drying wafered hay.

Much work is yet to be done on this study, the researchers report. You will be able to see the wafering equipment and how the studies are being made at the Farm and Home Festival of the UI College of Agriculture in Urbana on April 2, 3 and 4. Everyone is invited to attend this open-house affair and see the research work in progress at the Agricultural Experiment Station.

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FOR IMMEDIATE RELEASE

Japanese Livestock Experts Visit UI College of Veterinary Medicine

URBANA--Six of Japan's leading livestock experts visited the University of Illinois College of Veterinary Medicine on February 24.

Their visit marked the midpoint of a three-month visit in the United States arranged by the Government of Japan, the International Cooperation Administration, the U. S. Department of Agriculture, land-grant colleges and universities and interested private industries.

Dr. C. A. Brandly, dean of the College of Veterinary Medicine, said the specialists conferred with faculty members and observed research projects at the college.

Leader of the team is Dr. Kiyoji Ninomiya, and the secretary is Dr. Kenzo Suzuki. Others are Dr. Masao Soekawa, Dr. Tsuruo Ichihara, Dr. Hiroomi Ono and Dr. Kunio Ono. Experts in their field, they represent university professors, veterinary scientists, biological research organization and private veterinary firms. Also accompanying the team are two interpreters from the Japanese embassy, Tratsuomi Kusano and Masao Yanagi.

According to Dr. Carl V. Metcalf, ICA veterinarian, who accompanied them, the object of their U. S. visit is to become familiar with new developments in antibiotics for livestock feeding, disease control, breeding and management; special methods of preserving meats with drugs; and administrative organizations that inspect and control livestock diseases.

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Japan plans a 50 percent increase in livestock numbers over the next five years, Metcalf revealed. In one phase of the program--a project to provide more livestock feed through grassland improvement--ICA is assisting by providing grass and legume seeds for about 25,000 demonstration plots throughout Japan.

Besides Illinois, the team's itinerary includes visits with other colleges and private organizations in New York, Indiana, Iowa, Kansas, Nebraska and California.

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2/26/59

FOR IMMEDIATE RELEASE

Orientation Planting Saves Soil Moisture

URBANA--Planting corn kernels by a method called orientation planting looks good as a means of decreasing soil moisture loss through evaporation.

This method, carried out in 1958 by D. B. Peters and J. T. Wooley, USDA soil scientists at the University of Illinois, results in additional water for plant use, especially during the critical ear-setting period.

Here's how orientation planting works: Kernels are placed with points down and flat sides running with the row. Corn's natural growth pattern brings leaves out almost at right angles to the flat sides of the kernel. Subsequent pairs of leaves emerge slightly counterclockwise to the previous pair, so leaves of plants from oriented seed grow into the space between rows in such a way that up to 90 per-cent less sunlight strikes the ground. This reduces evaporation.

Since each plant produces leaves at about the same angle, there's less chance that a plant will shade the leaves of its neighbors. Maximum sunlight falls on the leaf surfaces.

On the other hand, the conventional random-planted kernels produce leaves at many different angles to the row. Plants overlap and give the ground less moisture-conserving shade.

During 1958 the experimental plots on which kernels were oriented outyielded plots with random-planted kernels by 3 to 23 bushels an acre. In plots where the unoriented seed was check-planted in hills

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40 inches apart, corn yielded 98 bushels an acre. Corn planted in staggered hills 40 inches apart produced 104 bushels.

Oriented kernels spaced 10 inches apart in rows 40 inches apart produced 107 bushels an acre. Cutting the distance between rows of oriented seed to 30 inches boosted yield to 121 bushels. Earlier research has shown that checked corn generally yields more than drilled corn.

On the plots where the oriented seed was planted, the scientists also observed slightly better weed control. Less sunlight penetrated the corn leaf cover.

In these tests corn was planted by hand. Peters emphasizes that several years of further tests will be required to determine whether this planting method is practical for farmers to use.

The plans for 1959 tests include repeating 1958 tests on larger areas, adding unoriented drilled corn as another check, and planting corn in rows parallel to and at right angles to prevailing winds to check effects on yields.

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Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

est Oats Before Seeding, Agronomist Urges

URBANA--A University of Illinois agronomist today urged all armers to run germination tests on all their seed oats before planting this spring.

W. O. Scott says that much of the oat crop was harvested during wet weather last year. Some of it spoiled in the bins. For this eason there is danger that some oats will not germinate well this year.

Scott suggests a germination test to be sure the oats to be eeded will grow and produce a satisfactory stand.

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FOR IMMEDIATE RELEASE

1958 Tests Show Further Advantage for Corn Over Grain Sorghum

URBANA--For most Illinois farmers, corn will produce a higher yield than grain sorghums, according to 1958 tests by University of Illinois agronomists. However, farmers with sandy or drouthy soils may find sorghums a more productive crop.

Carl N. Hittle, in charge of the sorghum testing program, reports that on the more fertile soils at four test fields hybrid corn outyielded hybrid sorghums by 12 to 35 bushels an acre.

On a very fertile field in Champaign county, corn yielded 125 bushels, whereas the hybrid sorghums averaged only 95 bushels. The best sorghum hybrid yielded 111 bushels.

However, on some very sandy soil near Havana, the grain sorghums averaged 41 bushels an acre, while three standard corn hybrids averaged only 21 bushels. The best sorghum hybrid made 58 bushels.

On some thin, drouthy soil at the Dixon Springs experiment station, corn yields averaged only 29 bushels; hybrid sorghums made 27 bushels. But the best sorghum hybrid made 45 bushels.

Hittle reports that in the cold, wet spring of 1958 the sorghum seed came up slower than usual and some of it rotted. The result was reduced stand. The small sorghum seed seems to be more susceptible to this damage than corn.

During July and August, temperatures averaged much below normal in many parts of the state. Sorghum needs a warm season. In Champaign county, blooming was delayed 20 days because of cool weather.

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In Mason county, where the tests were conducted in very sandy soil, the planting was made in wet sand and rain covered the seed too deeply. But dry weather came in late July and August. The sorghum proved that it could survive better and the yields proved its value in such situations.

Hybrid sorghums proved definitely superior to standard varieties by yielding 36 percent more. Tests were made on 29 hybrids and 9 standard varieties. Companies participating in the tests by supplying hybrid seed were DeKalb, Pfister Associated Growers, AMAK and Northrup King.

Test fields were located near Champaign and at Brownstown in Fayette county, Dixon Springs in Pope county, Carbondale in Jackson county, Havana in Mason county and Biggsville in Henderson county.

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3/2/59

FOR IMMEDIATE RELEASE

Research Shows Some Farmers Plant Unfit Seed Oats

URBANA--Most Illinois farmers use good seed oats. But some are still cheating themselves by using low-germinating or impure seed.

These are the main conclusions reached in a survey of 1,124 seed oat samples taken from Illinois farmers' drill boxes last spring. This study, covering 60 central and northern Illinois counties, was made by farm advisers in cooperation with the University of Illinois department of agronomy and the Illinois Crop Improvement Association.

The average seed oat sample contained 98.9 percent pure seed, .01 percent weed seed, .9 percent inert matter and .1 percent other crop seed. It germinated 94 percent. But many farmers' samples didn't rate this well.

While most samples germinated quite well, several fell below 60 percent. One germinated only 18 percent.

More than 10 percent of the farmers using seed from their own bins or getting seed from a neighbor would not have been able to sell it under the state seed law because of the noxious weed seeds it contained. One sample contained over 100 Canada thistle seeds per pound of seed; another sample carried 900 wild mustard seeds per pound. Several other samples carried 100 or more wild mustard or curled dock seeds per pound. One sample contained over 1,500 foxtail seeds per pound.

Clintland proved to be the most popular variety, being planted by 43 percent of the farmers in the sample. Nemaha was planted by 24

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percent. Newton ranked third with 15.5 percent. Ten percent of these farmers were using certified seed. About 50 percent used their own seed. About 29 percent obtained it from a neighbor. About 16 percent bought seed from seed dealers, and the remaining 4 percent obtained theirs from other sources.

About 70 percent of these farmers reported that they had cleaned their seed. Yet only 25 percent had obtained a purity analysis. Only 59 percent had made germination tests. W. O. Scott, University of Illinois agronomist, emphasizes the point that cleaning alone is not enough. He points out that good equipment and an experienced operator are required. Sometimes when certain weed seeds are present, more than one kind of cleaning equipment is needed to properly clean oats. After cleaning, a purity analysis will show whether a good cleaning job has been done.

Scott points out that the State Department of Agriculture will make five free germination and purity tests a year for any Illinois farmer.

The weediest seed samples in this study came from farms where the farmer was using his own seed or obtained it from a neighbor. Scott urges farmers who use their own seed to clean it or have it cleaned and then get a purity analysis and germination test. The survey showed that quality of certified seed samples was much higher than that of uncertified seed. Many farmers would profit by buying seed from a reputable seed dealer.

The department of agronomy is now making a more complete summary of the test results on 1,461 samples. But the findings on these first 1,124 samples show that, while most farmers do a good job of selecting their seed oats, there is still room for improvement.

The 1959 University of Illinois Farm and Home Festival on April 2, 3, and 4 will feature a special exhibit on planting quality seed oats. The complete results of this drill box survey will be reported then.

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3/2/59

FOR IMMEDIATE RELEASE

UI Veterinarians Collect Blood at Chicago Convention

URBANA--University of Illinois veterinarians collected blood from members of the Illinois State Veterinary Medical Association last week at their 77th annual convention in Chicago. The blood will be used in a study of diseases transmissible from animal to man.

Dr. Deam H. Ferris of the UI College of Veterinary Medicine, reported that 96 of the more than 500 veterinarians attending the convention contributed samples.

Samples were collected mainly from large animal practitioners, Dr. Ferris explained, because this particular study is most concerned with diseases that might be transmitted between man and domestic livestock.

Diseases with which the veterinarians are concerned include brucellosis, tuberculosis, leptospirosis, Q-fever and psittacosis. In spite of the extreme care a veterinarian exercises, such diseases as these are considered occupational hazards.

Examination of the blood samples collected last year disclosed a number of veterinarians showing positive reactions to the various diseases. Not all of these reactions mean that the men had the clinical form of the disease. Since not all the means of transmission of these diseases are known, a slight contact with the disease agent in some unusual way may have caused no detectable illness, but only a rise in protective antibodies, points out Dr. Ferris. The presence of antibodies in these bloods gives the Illinois research workers clues to location of the main sources of infection in the state.

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Cooperating with the UI College of Veterinary Medicine were the Illinois State Department of Public Health, Springfield, and the U. S. Department of Public Health, Washington, D. C. Physicians and technicians from these organizations collected the blood samples which will be used in the research project. Results of examination of blood samples collected this year will not be known for some time.

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3/2/59

FOR IMMEDIATE RELEASE

Dairy Cattle Association Elects Officers

URBANA--Elroy Dannewitz, Savannah, is the new president of the Illinois Purebred Dairy Cattle Association.

Dannewitz was elected at the 11th annual dairy calf club auction and business meeting of the group last week end on the University of Illinois campus at Urbana. Willis Wagler, Pekin, was named vice-president, and J. G. Cash, University of Illinois dairy extension specialist, was elected secretary-treasurer.

The association sponsors the annual calf auction to offer top animals as foundation stock for 4-H and FFA members. The 1959 auction attracted buyers from 26 Illinois counties.

The auction sold 69 dairy calves at an average of $202.65 a head. The calves went to 64 different buyers. Each buyer had to certify that the calves would be used only for 4-H or FFA projects.

Top animal at the sale, a Holstein, brought $490. The top Ayrshire sold for $440; top Guernsey, $400; top Brown Swiss, $345; and top Jersey, $260. Animals were consigned from top dairy herds in Illinois and sold without charge at the University of Illinois stock pavilion.

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3/3/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

(Note to Editors: This is the first issue of the 1959 TIPS FOR ILLINOIS GARDENERS column, a timely feature to be written each week this spring and summer by a specialist from the Department of Horticulture. Your comments and suggestions will be appreciated. EXTENSION EDITORIAL OFFICE)

Fertilizing Tips for Trees and Lawns

by Frank W. Owen and H. R. Kemmerer
University of Illinois Department of Horticulture

URBANA--Fertilizing trees, lawns and shrubs now will make the fertilizer readily available when spring growth begins. In this way plants can use it most effectively.

Shade Trees: Most home gardeners find dry fertilizer easier to use for shade trees than liquid fertilizers. Although the liquid materials are just as effective, if not more so, most home owners lack the equipment necessary to use them.

To get the best use of dry fertilizers, place them in the ground instead of broadcasting them on the surface. With a soil auger or pipe, dig holes about one foot deep around the tree. Begin the holes about two feet from the trunk, and space them about two and one-half feet apart until they extend two feet beyond the branch spread.

The amount of fertilizer to apply depends on the diameter of the tree trunk. For trees with trunks less than three inches across, apply 1 1/2 pounds of 10-10-10 for every inch. For trees with trunks three inches or more in diameter, apply three pounds of 10-10-10 for every inch.

For example, a tree whose trunk is three inches in diameter would require nine pounds of fertilizer, placed equally in the holes under the trees.

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Ornamental Shrubs: Liquid fertilizer is best for ornamental shrubs be-
ɛause it is readily available to the plant. But, again, most home owners lack the
ɛquipment necessary to use it. So contact any nursery or lawn service for a cost
ɛstimate.

Evergreens: To fertilize evergreens, apply two pounds of 10-10-10 for
ɛvery 100 square feet of surface under the trees. Or contact a commercial firm to
ɑpply liquid material.

Fruit Trees: If fruit trees are growing in the lawn, place the fertilizer
ın the soil. Follow the same procedure recommended for shade trees. But if there
ıs no grass under the trees, broadcast the fertilizer instead.

How much fertilizer to use depends on the tree age. Here's an easy rule-
ɔf-thumb to follow:

1 - 5	years	of	age:	4	pounds	of	10-10-10	per tree
5 -10	"	"	" :	9	"	"	"	" "
10-20	"	"	" :	15	"	"	"	" "
20 plus	"	"	" :	21	"	"	"	" "

Lawns: For every 1,000 square feet of lawn, apply up to 20 pounds of
10-8-6 or 10-10-10.

(For gardeners who are not familiar with fertilizer terms, 10-10-10 and
10-8-6 represent the percentage of nitrogen, phosphorus and potash, respectively,
contained in the bag.)

PAC:cm
3/2/59

FOR RELEASE THURSDAY, MARCH 5, 1959

Discuss Latest Pig Rations at Swine Day

URBANA--Latest recommendations for growing-fattening swine based on research at the Illinois Agricultural Experiment Station were the main topic for discussion here today at the annual Illinois Swine Growers Day program.

Pigs in one experiment gained faster on complete ground mixed rations than similar pigs fed shelled corn mixed with supplement, according to G. R. Carlisle, extension livestock specialist at the University of Illinois.

Mixing shelled corn with meal or pelleted supplement produced gains about the same as those when corn and supplement were fed free choice.

Pigs with free-choice access to a supplement containing only soybean oil meal as a source of protein ate more of it than was necessary for most economical gains. For that reason, when this supplement was used, costs of gain were more favorable for the pigs getting the complete mixed rations.

Less feed was needed for each pound of gain produced by the shelled corn-supplement mixes than by the complete mixed rations, Carlisle pointed out. But this difference was partly due to the relative size of the pigs, since the pigs getting the complete mixed rations weighed an average of 20 pounds more at the end of the test.

In another Swine Day report, A. H. Jensen, UI assistant professor of animal science, summarized three experiments that compared wheat, oats, barley and milo as substitutes for corn in corn—soybean

-more-

oil meal rations for growing-finishing pigs fed in drylot. These tests also studied the effects of pelleting on these rations.

Feeding barley and milo rations in pellets resulted in 22 and 8 percent faster gains, respectively, Jensen reported, than feeding them in meal form. On the other hand, pelleting did not affect corn and wheat rations very much. Pigs gained slightly less on pelleted oat rations than on the same feed in meal form.

Amount of feed needed for each pound of gain went down when pelleted barley, wheat and milo rations were fed. More of the corn and oat pellets were needed for each pound of gain than of the same rations in meal form, but this difference was due mostly to the extra wasted feed in the pellets.

When the grain rations were mixed so that the protein content of each was the same, average daily gains were 2.02 pounds for corn, 1.73 pounds for milo, 1.58 pounds for wheat and 1.45 pounds for oats. Pelleting improved the growth record for each of these rations except corn.

Although pelleting improved the feeding value of barley, it was still much inferior to corn in these experiments, Jensen said. Results of pelleting oat rations have been variable. Pelleting made the rations easier to handle, particularly by reducing the dustiness and powdery texture of the wheat and milo rations.

J. P. Baker, UI assistant in animal science, reported on four tests conducted to find out how effective several different iron treatments are in preventing anemia in baby pigs. Two different creep rations were also used for these pigs, which were weaned when they reached a weight of 25 pounds.

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A creep ration made up of ground yellow corn, soybean meal, dried whey and meat and bone scrap with mineral, vitamin and antibiotic additions put on gains equal to those produced by a formula that included a high level of rolled oats and 10 percent cerelose sugar added for sweetening, Baker reported.

A comparison of iron tablets and injectable iron dextran showed weaning weights slightly higher with the latter. Death losses were not much different. Choice between these two treatments probably will depend upon their relative cost and ease of use.

Ferrous gluconate and ferric ammonium citrate were too toxic to be used as injectable sources of iron to prevent anemia. Peptonized iron compounds appeared to be satisfactory sources of injectable iron, but they need further study, Baker said.

Surprisingly, limiting feeder space increased rate and efficiency of gain in another test at the Illinois Agricultural Experiment Station reported by D. E. Becker, UI professor of animal science. A complete ration fed in self-feeders produced an average daily gain of 1.88 pounds when there were six pigs to each feeder hole. Average daily gain was only 1.69 pounds when similar pigs were fed at the rate of 1 1/2 to each feeder hole. Apparently the pigs ate more when there was competition for the feeder holes, Becker pointed out. Of course, severely limiting the number of feeder holes probably would also cause some undesirable effects.

Results of this one experiment will not support a general recommendation on feeder space needs of 125-pound pigs, Becker said. More experiments need to be conducted on this need.

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Adding one one-hundreths percent of arsanilic acid to the ration failed to affect rate of gain, feed per pound of gain, backfat thickness and carcass length in this experiment, Becker reported. But a complete ration produced much higher rate and efficiency of gain than free-choice feeding of shelled corn and supplement.

In another experiment reported by Becker, results showed that adding certain antibiotic combinations or some new antibiotics to the rations of growing-finishing swine increases rate of gain over that of terramycin alone.

High-moisture corn compared favorably with low-moisture corn in one test reported at Swine Day. Average daily gains ranged from 1.44 pounds on corn harvested and ensiled in a wooden silo at 27 percent moisture content down to 1.35 pounds on corn harvested at 13.5 percent moisture and ensiled at 40 percent moisture (water added).

Some moldy corn was found on the top and at the sides of the 27 percent and 40 percent corn stored for seven months in a wooden silo. Moldy corn from silos has been reported to have bad effects when fed to hogs, but no difficulty was found in this feeding trial.

Sows fed corn silage during gestation failed to gain weight unless additional ground corn was given to them. Previous reports showed that sows would eat 10 to 12 pounds of corn silage a day. Highest average amount eaten per day in this test was 3.39 pounds, although the silage was high in quality. Sows may vary widely in their individual rate of eating silage.

However, when 1/2 pound of supplement is fed daily to each sow, either alfalfa silage fed with 2 pounds of corn or alfalfa silage ensiled with 40 percent corn in it is satisfactory for sows during the latter part of the gestation period.

Results of this test show that sows fed corn silage and 1.5 pounds of supplement daily also need 2 pounds of ground corn in addition to perform satisfactorily.

RAJ:cm
3/3/59

FOR RELEASE THURSDAY, MARCH 5, 1959

Fall Hog Prices Expected to Hold Above 1955

URBANA--A University of Illinois agricultural economist expects hog prices to hold up much better this fall than they did in 1955. Speaking before the annual Illinois Swine Growers Day, today, L. H. Simerl gave these reasons why he expects the better prices.

The supply of pork per person may be no greater, and probably will be less, than it was in 1955. Farmers have reported that they plan to produce about 2 percent more pigs this spring than they did four years ago. But the population has climbed 7 percent since that time.

Consumers are accustomed to eating much more pork than they ate in 1955. Right now, Simerl pointed out, packers, retailers and consumers are working through the 1958 fall pig crop. This crop is about 25 percent greater than was being slaughtered, retailed and consumed at this time four years ago.

In strong contrast, the probable market supply of hogs this fall will be no more than 5 percent greater than it was four years ago. The supply per person, however, may be no greater, and possibly will be a little less, than in 1955.

The competitive supply of beef is also more favorable to the hog market this year. The beef supply increased 20 percent from July 1955 to February 1956. No such increase is in prospect for next fall. Only a severe and widespread drouth would force such a big increase as 20 percent on the market in the next 12 months.

Looking to the 1959 fall pig crop, Simerl told swine growers to expect a larger number than that of the past fall. He pointed out that the expanding phase of the hog cycle usually runs for more than one year. Recently the hog-corn price ratio has been favorable at around 14. It will probably remain favorable during the next three months when farmers breed for fall pigs. There is also a wide abundance of feed grains that favors increased hog production.

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3/3/59

utomatic Controls Make Limited Feeding Accurate

URBANA--Automatic control of limited feeding systems for ork production may prove to be an economic advantage.

Frank Andrew, extension farm electrical specialist at the niversity of Illinois, told an annual Swine Growers Day audience here oday that small automatic mills available today hooked into a mechan- cal feed-handling system can be about 99 percent accurate in mixing ngredients.

That's far superior to the old scoop-shovel way of mixing eed in a tractor-powered mill, Andrew pointed out. It's also much heaper than grinding the ingredients separately and then mixing them in a separate mixer.

Besides the saving in labor, one of the chief benefits of a small automatic feed-handling system is the availability of freshly ground feed every day.

Shortage of labor these days and the need to increase produc- tion per man are compelling farmers to mechanize and to specialize in their production operations, Andrew said.

Some hog growers have ventured into the field of concentrated log production with only a small amount of manpower. These farmers recognize their chance to decrease unit costs by increasing the number of units they produce. And they also realize that they can reduce production costs by substituting mechanical devices for human labor.

The five parts of electrically controlled feeding systems are the bins, blenders, grinders, coveyors and distributors. An auto- matic feeding system can convey materials from storage through proces- sing and on to the distribution points without manual handling. Farmers who put in one of these systems are substituting electrical or mechan- cal power for human power whenever possible.

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FOR RELEASE THURSDAY, MARCH 5, 1959

New Plans for Swine-Finishing Buildings

URBANA--Sometimes it's better to remodel old barns or sheds for swine farrowing and nursing quarters and build a new finishing shed, according to D. G. Jedele, extension agricultural engineer at the University of Illinois.

When you build a new finishing shed, you have a chance to locate it correctly in the farmstead and to build in mechanical feeding and manure handling features, Jedele told a Swine Day audience here today.

Drylot finishing facilities should be located at least 200 feet away from the farmhouse, and preferably north and east of it, Jedele says. Prevailing breezes in summer come from the southwest.

Locate the facility where it will be easy to deliver feed to it and to handle manure conveniently. You may need to build a new feed storage and processing center near the swine-finishing building.

It's wise to limit the number of pigs to 75 for each pen, Jedele suggests. Provide one feeder hole for every three or four pigs and one automatic watering cup for every 25 pigs.

Put feeders where the hogs must pass through the dunging area in going from the resting to the feeding area. Locate waterers next to the dunging area rather than near the feeders. Arrange gates and alleys so that it's convenient to move hogs into and out of the building.

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The building itself may cover the entire floor. Or it may cover only the resting and feeding areas. Water and exercise space may be provided in the open, but completely covered lots are preferred because rainwater adds to the problems of manure disposal.

Build a clear-span roof to make the building usable for other purposes. Leave it open to the south or east for winter use, and provide doors in the north or west that can be opened in summer.

Provide a good, dense concrete floor with a wood-float finish, Jedele recommends. Slope the floors about 1/2 inch per foot. Put solid partitions between pens to control drafts. Use steel, hardwood lumber, exterior plywood or similar chew-resistant materials for pen partitions.

Choose roofing materials that will keep moisture condensation to a minimum. Asphalt-impregnated insulation board under sheet metal or solid wood decking under asphalt shingles is satisfactory. Even with these materials you'll probably get some condensation. Provide openings at the eaves and ventilators at the ridge to remove warm, moist air from the building.

Manure handling can be simplified by a gutter removal system and a manure storage area. You may decide that a combination of liquid manure in summer and solid manure in winter will work best for you.

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3/3/59

ILLINOIS FARMERS' OUTLOOK LETTER

SUPPORT LEVEL SETS CEILING AND FLOOR FOR BEAN PRICES

URBANA, ILLINOIS MARCH 4, 1959

Soybean prices have been holding around the support level, less the costs of storage in commercial warehouses. This reflects the fact that more than half of the beans placed under price support have been stored in warehouses rather than on farms.

At mid-February, government figures showed that a total of 137 million bushels of 1958 crop soybeans had been placed under price support. Of this amount, 73 million bushels were under loan in warehouses, 51 million were under loan on farms and 13 million were under purchase agreements.

According to government estimates, the supply of beans available on February 1 for crushing and export totaled 378 million bushels. This was 81 million more than one year before.

During the first four months of this marketing year, October through January, exports and crushings took 186 million bushels, or 23 million more than one year before. To put it another way, rate of disappearance has increased by about 1 1/2 million bushels a week.

If this same increase holds for the rest of the year, the carryover next fall apparently will be 50 to 60 million bushels. That would compare with 21 million bushels last fall, the previous record high. (A recent USDA estimate of the carryover was much higher--90 million bushels.)

Since the amount of beans under price support is well over the expected carryover, many beans now under price support will be used before October 1. They may not be needed, however, until after May 31, when the CCC takes delivery on beans now under price support.

The supply of beans not under price support, or needed for seed, on February 1 apparently was around 240 million bushels. This is about twice as much as was crushed and exported in the February-May period last year.

Price support loans will be due May 31, or in less than 90 days. After that date buyers can obtain beans from the CCC at current market prices, but not less than the price support level plus

(Continued)

1 1/2 cents a month. The price support level plus 1 1/2 cents a month will tend to become a price ceiling, since each sale by CCC tends to establish a market price.

The soybean is really two products in one package. These products are (1) a high protein feed for poultry and livestock and (2) a food fat used in cooking and at the table.

The market for the protein feed is increasing, but it may meet more competition from cottonseed meal next year. The soybean oil must sell in U. S. and world markets in competition with many fats and oils, including butter, lard, cottonseed oil, coconut oil, tallow, peanut oil, olive oil, sesame oil, etc.

The price support level for 1959 crop soybeans will be $1.85 a bushel, 24 cents less than for the 1958 crop.

L. H. Simerl
Department of Agricultural Economic

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK....

AT DIXON SPRINGS

(A roundup of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Except for bird calls, the peppering splatter of seed whirring from cyclone seeders onto frosted and sun-jeweled grasses is about the only sound heard in early morning on some of the back fields of the Experiment Station. In the early, slanting rays of the rising sun, George McKibben and Wayne Mizell may be seen striding over hill and valley, busy at their annual spring seeding operation.

Tons of Seed

George and Wayne are spreading out the mountain of seed, about four tons, to be broadcast over some 500 acres of new pasture land. Three flags, one at each end and one in the middle of the field, guide them in a straight path across the land as they step out side by side with about five paces separating them. Walking in a straight line, at the proper separating distance, and "with a coordinated rhythm between cranking hand and stride," George and Wayne spread the seed evenly for the resulting solid stand of forage.

Weather and Soil

The seed sowers keep an eye on seeding weather and condition of the ground. The pin-head-sized seed needs to be covered but not too deeply--about 1/4 to 1/2 inch. A soil that is checked and honeycombed with ridges and depressions is perfect for receiving and properly covering this seed. The alternate freezing and thawing of soils at this time of year cause this honeycomb condition. George feels that it's risky to seed on a rain-sealed ground where another rain will wash the seed into the hollows and creeks.

Mixture

Here is the mixture that is being used on a high percentage of the Station's fields: Ladino 1 pound, sweet clover 2 pounds, red clover 4 pounds, lespedeza

-more-

7 pounds and timothy 2 pounds. Grasses are generally fall-seeded, and last fall was no exception on the Station. However, this past winter was unusually hard on some of the seedings, and for this reason McKibben is including some timothy in the broadcast mixture. He also thinks a pound or two of redtop in the mixture would be a good bet. The larger seeded grasses like orchard, brome or fescue might best be drilled as soon as the ground will support a tractor and drill.

Inoculate

Before seeding, the clovers are mixed and inoculated. The lespedeza is inoculated and then, with the grasses, is mixed with the clovers so that the entire seeding is put on in a once-over trip. It is best not to inoculate more than 1/2 day's supply of seed, because the inoculating bacteria weaken and die if they are exposed to air for too long a period.

HAC:jb
3/4/59

for dailies

Farm News

NIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Safety With the Farm Truck

URBANA--A traffic accident may give you a vacation you can't afford. So don't get laid up by traffic accident injuries during the busy work season.

With farm trucks an increasingly valuable and important part of farm working equipment, farmers are subject to additional hazards in an already hazardous occupation.

O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture, calls farmers' attention to the following suggestions for farm truck drivers:

Know traffic signs and rules of the road, and always obey them.

Come to a full stop when entering a main highway or at regular stop signs, and do not proceed until it is safe to do so.

Slow to a safe speed for turns, and use proper hand signals.

Keep lights, brakes, steering mechanisms and windshield wipers in perfect working order.

Be on the lookout for pedestrians; watch out for children and bicycles.

Never stop your truck on the pavement.

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3/5/59

FOR IMMEDIATE RELEASE

Farm Machinery Day Set for March 10

URBANA--The sixth annual Farm Machinery Day will be held in the Stock Pavilion at the University of Illinois on Tuesday, March 10.

Wendell Bowers, extension farm machinery specialist at the UI College of Agriculture, in charge of the program, says that invitations have been extended to farm machinery dealers and their company representatives, as well as to county farm advisers and vocational agriculture teachers.

Theme of this year's meeting is "Trends in Farm Machinery," Bowers says. Program speakers will take a look at the future and try to foresee what some of the farm machinery available to farmers in the years to come will be like.

Tractor trends will include discussions of tractor transmissions, power-take-off speeds and air cleaners. Feed-handling trends will cover automatic feed-handling systems and hay pelleting.

Department of Agricultural Engineering staff members who will discuss these topics include Dwight Kampe, Jay Weber, John Siemens, Frank Andrew and G. E. Pickard.

C. L. Folse, UI rural sociologist, will demonstrate the social diffusion process, which shows how farmer customers accept new ideas.

Bowers will summarize methods that farmers now use for minimum tillage and what this system means to dealers. R. F. Espenschied, UI vocational agriculture service, is scheduled to show Machinery Day visitors how good selection of visual materials can make selling more effective.

P. T. Ecton, Ecton Supply Company, Lexington, Kentucky, will discuss the pros and cons of renting farm machinery.

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3/5/59

FOR IMMEDIATE RELEASE

Farming Opportunities Limited to Two Out of Five Boys

URBANA--Only two Illinois farm boys out of five in the high school graduating class of 1959 will find an opportunity to become farm operators!

This startling fact was revealed by Franklin J. Reiss, University of Illinois farm management specialist, in an article appearing in the March 7 issue of PRAIRIE FARMER.

According to Reiss, about 4,000 new farm operators normally need to enter farming each year to replace older farmers who die, retire or enter other work. However, about one-third of these farming opportunities are absorbed as other farms enlarge. So, instead of 4,000 farming opportunities, there are only about 2,700.

But there are about 6,400 farm boys to compete for these farming opportunities. This estimate is based on the last population census in 1950. At that time there were 7,400 boys in Illinois rural families who were ten years old. Assuming no deaths, these boys would now have reached 18 years and be ready to graduate from high school.

Not all of this group will complete high school. But all who remain on farms will be eligible to compete for farming opportunities. It seems reasonable to assume that at least 1,000 will have moved off the farm with their parents before reaching age 18. That leaves 6,400, or about five boys for every two opportunities to become farm operators.

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Select Career Early

Finding a way to make a living other than farming will continue to be a major problem for many farm boys and their parents. Here are some suggestions from Reiss:

1. A farm boy must first decide whether he actually wants to farm. Fortunately not all boys do. If he is interested in some other career, this fact should be recognized so that he can make plans accordingly.

2. If a boy wants to farm, he must realize that opportunities are limited. With his parents he must appraise available farming prospects. What chance will he have to get some land? What chance will he have to save or borrow the necessary money to begin farming? Will the home farm be available when he's ready to start farming, or does his dad plan to continue farming? Is the home farm large enough to support both father and son, perhaps with some expansion? Are there other boys in the family who may want to take over the home farm too?

3. Parents should appraise the ability of the boy to become a successful farm operator. This means more than having just a mere interest or desire to become a farmer. Within a family, it seems appropriate that the limited opportunities should go to the boys who show the greatest promise.

4. Although actual farming opportunities have decreased, the number of opportunities to serve the total agricultural industry have increased. Agriculture and related business and industry offer careers in agricultural research; teaching and extension; marketing of farm

products; buying and selling of feed, fertilizer, other farm supplies and equipment; and agricultural public relations, advertising and journalism.

Many farm boys have also become successful in such fields as medicine, theology, law, science and industry. So there are many other opportunities for farm boys who can't farm, Reiss says.

But qualifying for many of these non-farm jobs requires special training--often a college education. A 1954 study in four southern and central Illinois counties showed that lack of training and education for non-farm jobs was the most difficult problem faced by farm-reared boys who did not find an opportunity to farm.

In spite of the increased unemployment last year, the number of jobs available to college graduates exceeded the supply. This was true for graduates in agriculture as well as in other scientific fields.

Early in high school, Reiss advises boys and their parents to talk with teachers and other counselors about career opportunities. Then they can select courses that will prepare them for higher education or other occupations where they can find the opportunities best suited to their interests and abilities.

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3/5/59

FOR IMMEDIATE RELEASE

Japanese Boy Seeks American Farm Experience

URBANA--A young man who grew up on a two-acre Japanese farm has come to this country to acquire practical experience in American farming methods and to study scientific farm management at the University of Illinois.

Even though Michi Umino's father had only a two-acre farm, 20 hogs and some chickens, Michi has operated modern farm machinery, has helped to produce corn, wheat, soybeans and alfalfa and has cared for hogs, cattle and chickens. With this experience he gained at the International Christian University farm near Tokyo, he plans to work on an Illinois farm for a year.

During this time he wants to get closely acquainted with American farming and farm living and prepare himself for advanced study in farm management.

Umino, who is 28 years old, graduated from Miyazaki University with a degree in agricultural economics in 1953. He did advanced study and research work at both the International Christian University and Kyoto University and has taught high school social studies for the past two years.

While at the International Christian University, Umino was a student of Professor David E. Lindstrom, who was on leave from the University of Illinois. His acquaintance with Lindstrom resulted in his decision to come to Illinois.

Umino has taken a job working on the farm of Rolland H. Starkey near Ludlow in Champaign county. The Starkeys learned of his interest in getting farm work when he appeared on the College of Agriculture television show.

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3/4/59
NO

FOR IMMEDIATE RELEASE

NSF Grants $9,700 for Plant Disease Study

URBANA--The National Science Foundation has granted University of Illinois plant pathologist A. L. Hooker $9,700 to support research leading toward development of disease-resistant field crops.

The grant will pay for a year's research to investigate the action of rusts on corn plants. This study will continue research that Hooker has carried on since 1953.

The project is designed to find out more about the genetic makeup and life functions of host corn plants and their reactions to disease-causing organisms. Once scientists know more about these host-parasite interactions, they can make better use of plant-breeding techniques to develop disease-resistant field crop varieties.

Hooker uses corn as the host plant because it is the nation's most valuable crop besides being well suited to his research needs. Since many other field crops are attacked by disease organisms in much the same way, the experimental conclusions will also apply to other crops besides corn.

Combining disease resistance with present high-yielding crop varieties is the best way to control many field crop diseases, Hooker reports. Past attempts to breed disease-resistant plants have sometimes failed because the host-parasite interactions were not fully understood.

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3/5/59

FOR IMMEDIATE RELEASE

UI College of Agriculture Plans Ag Student Guest Day

URBANA--The University of Illinois College of Agriculture has announced plans for holding an Ag Student Guest Day on the campus April 4.

This Guest Day is planned for all students in both junior and senior high schools who are interested in attending the college, reports Cecil D. Smith, assistant dean.

Registration for the agriculture "student" guests will begin at 9:00 a.m. in Gregory Hall. The first topic on the program will be a discussion of admission, costs, scholarships and housing by Dean Smith.

Also slated for presentation are talks on campus life, possibilities for working one's way through college, opportunities in agriculture and a freshman student's report on his first year at Illinois.

Then the students will divide into groups according to their interests. Sessions will be offered on agricultural economics, agronomy, animal science, dairy science, agricultural education, horticulture (includinghorticultural food crops and floriculture), agricultural journalism and food and dairy technology.

According to Dean Smith, Guest Day offers a valuable opportunity to students who are interested in attending the College of Agriculture, but who have questions about careers and college life.

The Ag Student Guest Day is planned in conjunction with the Farm and Home Festival April 2, 3 and 4, on the campus.

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PAC:cm
3/4/59
NO

FOR IMMEDIATE RELEASE

UI Veterinarians to Show Disease Control in Space Age

URBANA--Visitors at the 1959 Farm and Home Festival, April 2, 3 and 4 in Urbana will see a preview of veterinary medicial research and disease control problems in the space age, according to Dr. D. H. Ferris of the University of Illinois College of Veterinary Medicine.

One set of problems to be solved in the space age, says Dr. Ferris, involves the presence of basence of life on the moon and on other plants. The living requirements of men and animals that are projected into space will also require solutions.

Another set of problems involves most people who will be living on the earth in the space age. Vast changes will take place on the earth itself during the next 10 to 20 years if predictions of scientists come true.

Increased population in the future will bring such problems as overcrowding of man and animals, nutritional problems, faster spread of germs and parasites, more disease from stress and tension, increased disease from pollution, augmented radioactivity, poisons and additional diseases of degeneration, says Ferris.

Veterinary medical research techniques that contribute to the solution of these problems will be shown in the stock pavilion during the three days of the Festival. On exhibit will show how the egg is used in combating diseases.

Some vaccines against disease are produced by cultivation in eggs. These vaccines are used to control such diseases as rabies and

-more-

distemper in dogs and in man, fowl pox and Newcastle disease in chickens and sleeping sickness in horses. Eggs are also used in producing a wart vaccine for cattle.

Other attractions include exhibits on swine disease prevention, modern techniques in veterinary clinical medicine, parasitic problems, leptospirosis and other exhibits.

At the speaking program in the auditorium of the Veterinary Medicine building, Dr. A. B. Hoerlein will discuss, the question, "Can Diseases Be Controlled in Large-Scale Livestock Production?"

On Saturday morning, April 4, a period has been scheduled for high school students to discuss opportunities and requirements for veterinary medicine with representatives of the College.

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JER:cm
3/4/59
NO

FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending March 6, 1959, is prepared as a special service by the University of Illinois grain marketing staff.)

Grain Price Increase No More Than Storage Costs

URBANA--Grain price gains during the past month have been only enough to pay storage costs, according to T. A. Hieronymus, University of Illinois grain marketing economist. Corn has gained only about 1 cent and soybeans 2 cents, he points out. The April 1 tax date also makes farmers wonder whether to sell or hold.

Looking at the corn picture, Hieronymus expects that the amount of corn being used, and going under loan, will be large enough to force prices up a little further. Although prices are just about up to the low loan, some further advance to around $1.10 in east-central Illinois seems likely so that farmers will redeem some of their corn from the loan.

With the large disappearance in prospect, the amount of corn in the loan might force prices up enough to bring redemption of loan corn in Iowa. If this happened, Illinois prices could get as much as 9 cents over the low loan rate.

Commodity Credit Corporation has continued to sell large amounts of corn all season. Up to February 20 they had sold 89 million bushels compared with 85 million bushels a year ago. CCC market activity from now on will play an important role in determining the market price.

In getting ready for the take-over of 1958 loan corn, CCC has a tremendous job that would indicate high corn sales. However, country elevators are building a great amount of storage space. CCC is in a position to cut off all corn sales except for corn that is really out of condition. Much of the corn recently sold by CCC has graded No. 2. If CCC sales are cut off, the corn price could go up.

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...Data on Farm Purchases Is Now Ready

UNRRA-Grain Price gains during the past month have been only enough to ...

(Final grain warrer results for the week ending March 5, 1938, prepared by ...
special service by the University of Illinois grain marketing staff.)

Although soybeans have been moving up toward the loan rate, they're going to have a hard time making it, Hieronymus points out. CCC will apparently sell its stocks at slightly less than the loan, plus moisture premiums.

Farmers also own a large amount of soybeans and will sell enough to prevent the price from moving up to the full loan. They will probably sell all that buyers will want at $2.15 a bushel, so the price will move no higher than this before July. With the large amounts of beans available outside the loan, soybean users will probably have to get only 47 million bushels from CCC. And if they can buy 1959 beans in September, they will need less than this amount, Hieronymus concludes.

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3/6/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Ag College Alumni Plan Festival Meeting

URBANA--The University of Illinois College of Agriculture Alumni Association will hold its annual meeting at noon on Friday, April 3, during Farm and Home Festival. President Melvin Sims, Liberty, invites all alumni to come, meet old friends, make new ones and see the Festival at the same time.

Top speakers, entertainment, a delicious lunch and election of officers will round out the noon-time program. All persons who have ever attended the College of Agriculture or Agricultural Short Course are urged to attend.

The meeting will be held in Room 314 Illini Union. Luncheon reservations should be sent to Harold Guither, Secretary-Treasurer, 330 Mumford Hall, Urbana, by March 30.

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FOR IMMEDIATE RELEASE

Winter Weed Growing Takes Scientific Touch

URBANA--Growing weeds for one of the Farm and Home Festival exhibits this winter has forced University of Illinois agronomists to use some scientific ingenuity.

Weeds may grow almost anywhere without help in the summer. But Fred Slife and Ralph Gantz have found that it's quite a different story in midwinter.

Gantz and Slife are preparing a special weed identification and control test for visitors at the 1959 Farm and Home Festival at Urbana on April 2, 3 and 4. In order to have some of the live weed plants, they had to dig some of them up last fall and keep them alive in the greenhouse this winter. They are growing some others from seed.

But short winter days are not favorable for growth of many of the weeds. Some were drooping and lagging behind their time schedule. So the agronomists have had to make sure the weeds received plenty of water and fertilizer. They have also placed them in a room where they would receive more hours of light during the short winter days.

This has stimulated the plants' growth. They are now perking up and should be fully developed specimens for Festival visitors to try their skill at identifying.

Another part of the exhibit features a test to see how well visitors can pick the proper weed control chemical for each of the different weeds.

This exhibit is only one of more than 100 planned for the Festival. In addition, the Festival features a top-notch speaking program, a Town and Country Art Show and a Town and Country Talent Show. More than 15,000 persons attended the Festival in 1958.

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FOR IMMEDIATE RELEASE

77 Entries in Junior Chicken Contest

URBANA--Seventy-seven Illinois young people have entered the 10th annual Illinois Junior Chicken of Tomorrow Contest.

Clarence Ems, superintendent of the division of poultry husbandry, Illinois State Department of Agriculture, Springfield, contest chairman, reports that the central section of the state has the most entries--41 from 8 counties. The northern section has 31 entries from 7 counties and the southern section 5 entries from 2 counties.

This contest is open to any Illinois resident who was between the ages of 10 and 21 years on February 28, Ems reports. Contestants must grow and care for their chickens in this state.

An entry consists of 50 cockerel chicks of one breed, strain or cross. Deadline for entries was February 28. Hatching dates for the birds will be March 23 through 26.

Contestants will deliver 10 live cockerels from their entry to Armour Creameries, Lincoln, on May 20. The best 8 of these birds will be considered in making final placings. Judges will be Vern Almquist, Armour Creameries, Chicago, and S. F. Ridlen, extension poultry specialist, UI College of Agriculture.

Winning entries will be exhibited starting at 8:00 a.m. CDT on Saturday, May 23. State winners of first through fifth places will receive trophies. Section winners will receive cash awards and a ribbon, while each contestant who delivers birds to Lincoln will get a certificate.

Contest sponsors include the Illinois Poultry and Hatchery Association, the Poultry Division of the State Department of Agriculture, State Board of Vocational Education, University of Illinois and Southern Illinois University.

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FOR IMMEDIATE RELEASE

New Book of Beef, Dairy Equipment Plans Available

URBANA--Fifty-nine different equipment plans for beef and dairy cattle have been collected in a new book available from the Illinois Agricultural Extension Service.

Equipment plans available in the new book include silage carts, feed bunks, mechanical bunks, milking plant equipment, calf pen equipment, sun shades, head gates, calf creeps, cattle feeding shelters and working corrals.

The 56-page, 8 1/2 x 11-inch book, "Beef and Dairy Equipment Plans," is published by the Midwest Plan Service. In addition to complete working drawings, it includes 10 pages of construction details.

Also included are five pages of design, layout and equipment selection data. Feeding and handling systems are shown in 23 sample layouts. Cutting lists are given for most of the plans.

D. G. Jedele, extension agricultural engineer at the University of Illinois College of Agriculture, says the plans were developed by livestock and agricultural engineering specialists from the 13 midwest states cooperating in the Plan Service. After the plans were drawn, authorities from both colleges and industry reviewed them for accuracy and completeness.

One of the new book's chief advantages, Jedele says, is that it combines many necessary farm plans into one book at the reasonable price of $1.00 a copy. If you are interested in looking at a copy, see your county farm adviser. Or you can get a copy from D. G. Jedele, Department of Agricultural Engineering, Urbana, Illinois.

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FOR IMMEDIATE RELEASE

Hoerlein to Discuss Disease Control in Large-Scale Farming

URBANA--"Can diseases be controlled in large-scale livestock production?" That's the question to be discussed by Dr. A. B. Hoerlein of the University of Illinois College of Veterinary Medicine at the UI Farm and Home Festival on April 2, 3 and 4.

Diseases may well be the limiting factor in large-scale livestock production, says Dr. Hoerlein. Because of the relatively large amount of knowledge in animal nutrition and engineering, the nutritional and mechanical problems should be easier to solve than disease problems.

Concentration of large numbers of animals in a small area offers ideal conditions for disease to spread. We won't know which diseases will constitute the largest problems until they occur, but experience with poultry has proved that the respiratory infections are most serious where large numbers are crowded into small areas.

UI veterinarians are now doing research on diseases that will probably enter into the picture. Large-scale livestock production is being considered in plans for new research projects so that problems can be anticipated before they become serious. Under the concentrated artificial conditions of large-scale operations, disease prevention will be essential.

A professional approach is needed, with meticulous attention to basic principles of disease control. Veterinarians will play a leading role, according to Dr. Hoerlein.

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At the Farm and Home Festival, Dr. Hoerlein will discuss some of these problems. Other events planned by the College of Veterinary Medicine include exhibits on preventive veterinary medicine, clinical techniques, parasites, leptospirosis and other diseases.

High school students will have an opportunity on Saturday morning, April 4, to discuss opportunities in veterinary medicine and course requirements with representatives of the College.

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FOR IMMEDIATE RELEASE

Hitch Implements to Tractor Drawbar

URBANA--Always hitch trailing implements to your tractor drawbar to prevent the machine from tipping backward.

Any farmer who ignores this advice may not get a chance to correct his error, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture. When a tractor tips backward, it often crushes the driver or pins him down. Spilled fuel catching on fire is an additional danger.

Modern tractors are designed so that they'll stall or lose traction before they will tip backward when implements are hitched to the drawbar. But that safety feature does not apply when equipment is hitched to the axle, around the power lift or at any point above the drawbar.

An improper hitch may not cause the tractor to tip backward until you get into a tough pull or head up hill. When a tractor tips, things happen so fast that the driver seldom has a chance to reach the clutch or to jump.

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FOR IMMEDIATE RELEASE

Festival to Feature Research Through Education

URBANA--One of the featured exhibit areas of the University of Illinois Farm and Home Festival on April 2, 3 and 4 will center around the theme, "Research for Tomorrow--Through Education."

Warren Wessels, chairman of the exhibit area, explains that it will show the vast range of work conducted by the Agricultural Experiment Station, the Cooperative Extension Service, the College of Agriculture and cooperating organizations.

The Festival will be held on the University's south campus in Urbana.

According to Wessels, the Illinois Farm Management Service is one of the most extensive projects of its kind in the United States. Some 5,400 farmers cooperate in this service, which helps them analyze their business and develop better management practices.

Varied exhibits in this Festival area will show just how the Illinois Farm Management Service operates in cooperation with the College of Agriculture.

Other exhibits will show how the College serves foreign countries. During the period 1950-58, the College had representatives working in 34 foreign countries. These "good-will ambassadors" take with them the latest farming methods and ideas developed at the UI to help underdeveloped countries improve their agriculture.

And during this same eight-year period, more than 1,000 foreign visitors came to the College. They wanted to learn at first hand about the latest research methods and results.

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The State 4-H Club Office, with headquarters in the College of Agriculture, will have exhibits showing how they cooperate in working with 4-H'ers in every corner of Illinois.

The Vocational Agriculture Service is another educational service within the College. Exhibits will show how the more than 500 vo-ag teachers in Illinois serve 16,000 high school students and another 14,000 young and adult farmers enrolled for systematic instruction in agriculture.

These are only a few of the many exhibits in this area that will show how the College of Agriculture and Agricultural Experiment Station carry on their work.

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ILLINOIS FARMERS' OUTLOOK LETTER

MILK PRODUCTION STABILIZED BUT MANY DAIRYMEN QUIT

URBANA, ILLINOIS MARCH 11, 1959

Quite a number of dairy farmers quit dairying in 1958 and went into what they hope will be more profitable work. Other dairymen added more cows to develop more profitable dairy businesses. A few farmers began dairying for the first time.

All together, the total number of dairy cows was trimmed by almost 3 percent during the past year. At the beginning of this year, cow numbers were estimated at 21,606,000 head, which was 22 percent below the record high in 1945 and the smallest number on farms since 1921. Numbers of milk cows will surely be reduced again this year, though probably not so much as in 1958.

Milk production per cow went up again in 1958. The average was 6,330 pounds, which was nearly 3 percent more than average production in the previous year. Milk production per cow has increased about 3 percent each year for four years and is expected to increase about that much this year.

Total milk production apparently decreased by 1/2 percent in 1958. It was the first year in which milk production had not increased since 1952. USDA dairy economists expect total production to resume its uptrend this year. But they figure that the increase will be less than 1 percent.

Total milk production has increased much more slowly than population during the past 16 years. From 1942 to 1948, population increased by 28 percent while milk output increased only 7 percent.

Even though milk production declined slightly in 1958, farmers apparently sold more milk (and kept less on the farm) than in 1957.

Average prices received for milk by U. S. farmers increased about 5 percent from 1954 to 1957, but declined by about 2 percent in 1958.

Farmers' total cash receipts from the sale of dairy products were at a record high in 1958, but by a small margin. Receipts were also boosted by a substantial increase in prices received from the sale of cull cows.

But increcses in operating expenses and in the "ccst of living" apparently reduced the real income of dairymen in 1958. The average real income per dairy farm, however, probabl mained close to 1957 levels.

A bright spot in the dairy situation is that the "surplus" has been shrinking. A larger portion of the milk is being sold through regular channels, and less is being purchased for p support.

For example, in the 10 months ending with January, purchases of butter by the CC price support totaled 117 million pounds, 23 percent less than the year before. And purchas cheese amounted to only 30 million pounds, 86 percent less than in the previous year.

L. H. Simerl
Department of Agricultural Econo

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending March 13, 1959, is prepared as a special service by the University of Illinois grain marketing staff.)

Bad Weather Boosts Corn Price; Farmers Hold Huge Soybean Stocks

URBANA--Bad weather and soft country roads slowed corn deliveries and boosted prices 2 to 3 cents this past week, according to University of Illinois agricultural economist T. A. Hieronymus. Corn for immediate delivery sold 1 to 2 cents over April 30 delivery, when it had been selling at a 1-cent discount. But these difficult marketing conditions seldom last long, he points out.

With a substantial rise in carryover next fall, not much corn price increase can be expected under any circumstances, Hieronymus emphasizes. Unless Commodity Credit Corporation sales are reduced, there appears little chance that corn price will go above $1.10 in east-central Illinois. CCC sold 3.3 million bushels during the week ending February 27. Continued sales at this rate will prevent much further rise in corn prices.

Farmers hold large amounts of soybeans outside the loan this year. So government holdings will not be sufficient to force prices up to the loan rate before May 31, when CCC takes over all beans put under loan. At that time the CCC sales policy will set a ceiling of about $2.16½ a bushel for Illinois farmers.

Soybean oil and meal markets do not suggest anything to help soybean prices. So $2.15 looks like a pretty good selling price for non-loan soybeans, Hieronymus believes.

New crop wheat bid at $1.65 is higher in relation to the support price than usually prevails at harvest. This strength is being caused by some apparent crop damage east of the Mississippi, storage space construction in the southwest and increase in old crop wheat prices. But Hieronymus points out that wheat can recover from apparent winter damage, storage space in the west does not support prices in the east and old crop prices are on very shaky ground.

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UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Free Popcorn for Festival Visitors

URBANA--Hot, tasty popcorn will be available free at the University of Illinois Farm and Home Festival on April 2, 3 and 4.

This report comes from W. A. Huelsen, UI horticulture researcher. He will be in charge of popcorn distribution during the Festival. Huelsen adds that, along with their popcorn, visitors can also get a free pamphlet of instructions for popping.

According to these instructions, the kind of cooking oil used to pop corn has perhaps the most effect on its taste and aroma. Studies show that hydrogenated coconut oil is best and peanut oil next best.

Studies also show that, on the average, canned kernels are better than bagged kernels. Kernels in cans seldom lose their moisture, Huelsen says.

To top off good popcorn, the pamphlet recommends using flaked salt. It sticks to the kernels better than regular salt.

The reason for distributing the free popcorn is to show Festival visitors how much progress research has made toward producing popcorn with more "pop." During last year's Festival, more than 6,400 free samples were given away.

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FOR IMMEDIATE RELEASE

Farm and Home Festival Features High-Interest Speaking Program

URBANA--Besides more than 100 new exhibits in six major areas, the 1959 University of Illinois Farm and Home Festival will feature a speaking program covering some of the toughest problems facing Illinois farmers and homemakers.

Presentations are scheduled at 9:30 and 10:30 a.m. and 1:00 and 2:00 p.m. on all three days, April 2, 3 and 4, in four auditoriums on the College of Agriculture campus at Urbana. Here are the topics Festival visitors will hear discussed by authorities from the College staff:

Beginning on Thursday, April 2, livestockmen and dairymen will hear about the bloat problem, the latest on feed additives for beef cattle, antibiotics and hormones in dairy rations and trace nutrients.

Another session will cover fertilizers and fertilizing in 1959, modern soil maps and their uses, minimum tillage for corn and drainage for better farming.

During the afternoon session, a panel will discuss problems and opportunities in large-scale livestock production. Views on costs, large feed lots, swine specialization, dairy herd size, automatic feeding systems and disease problems will be presented.

Other programs will feature tax reform problems facing Illinois taxpayers and junior college opportunities from Illinois farm people.

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On Friday, April 3, sessions will feature selection, inbreeding and crossbreeding of cattle and swine; dwarf corn progress; harvesting, storing and feeding high-moisture corn; and new competition for Illinois livestock producers. Other programs will feature crop improvement in Illinois, new high-oil corn, corn and soybean diseases, expanding markets for Illinois farm products, and farm policy, prices and production.

On Saturday, April 4, presentations for farmers will include new ideas in farm leases and estate planning, saving labor on livestock farms by mechanization, feed preparation and repeat presentations of fertilizers and fertilizing, minimum tillage for corn, drainage and the large-scale livestock production panel on Thursday's program.

Those who attended last year, county farm and home advisers and vocational agriculture and home economics teachers have received a complete Festival speaking and exhibit program.

No matter which day you choose to attend, the 1959 Farm and Home Festival offers an opportunity to see and hear some of the latest developments in farming and homemaking.

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FOR IMMEDIATE RELEASE

Control Livestock Disease to Increase Farm Income

URBANA--Illinois farmers could increase their incomes by one-fourth if they could entirely get rid of animal diseases.

U. S. Department of Agriculture statistics show that more than one dollar out of every four that farmers receive goes to pay for losses from livestock diseases, according to Dr. Deam H. Ferris of the University of Illinois College of Veterinary Medicine.

Mastitis alone costs the enormous sum of $227 million each year. And leptospirosis is second with a total annual loss amounting to $110 million.

USDA economists estimate that nearly half of Illinois farm income comes from the sale of livestock. Any saving through disease prevention therefore has an immediate effect upon the state's economy, Dr. Ferris points out.

Research veterinarians at the UI College of Veterinary Medicine each month test blood samples from thousands of dairy cattle that have suffered abortions or show other signs of disease. Leptospirosis proves to be the "villain" in most of these cases. The whole story of livestock loss caused by leptospirosis waits for more research work on this complex disease.

Hog cholera leads the parade in swine disease losses. Economists estimate that cholera takes about $48 million a year out of farmers' pockets each year.

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Dr. Ferris estimates the total annual loss from livestock diseases at more than $2.7 billion. That's more than one-fourth of the value of all the livestock in the United States.

Some Illinois farmers can realize additional income immediately by putting into practice some of the new preventive veterinary medical practices pioneered by such veterinarians as Dr. R. W. Ormsbee of Stockton, California. His methods require complete records on each animal and regular visitation of the herd every two weeks by a veterinarian instead of the customary call that comes only after disease or injury strikes.

Records show that getting rid of parasites and other disease agents, including stress and toxic materials, can bring immediate gains. Consulting a veterinarian before disease strikes can also have immediate benefits. Experiments at the University of Wisconsin with twin calves have demonstrated that mild and unrecognized infections and infestations cause milk and meat losses.

Farm families also gain from a program of livestock disease prevention, Dr. Ferris believes. Healthy livestock may mean fewer hospital bills and better health, since many livestock diseases are transmissible from animals to man. Tuberculosis, brucellosis and leptospirosis are among the many diseases and parasites that affect both man and his animals.

At the Farm and Home Festival April 2, 3 and 4, the College of Veterinary Medicine will show research on diseases that have often wiped out profits after installation of new equipment for farm automation and mechanization. Laboratories, complete with technical equipment and living animals, will be taken from the Basic Sciences Building of the College of Veterinary Medicine to the Stock Pavilion, where Festival visitors will be able to see modern scientific research in progress on space-age diseases.

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FOR IMMEDIATE RELEASE

Whole Milk Keeps Young Calves Gaining

URBANA--Milk is ideal to satisfy the need of young calves for nutrients, as shown in tests at the University of Illinois.

K. E. Harshbarger, dairy scientist in the UI Agricultural Experiment Station, reports these results of experimental work with milk substitutes.

Average daily gain of the calves fed milk substitutes, calf starter and hay was about one pound a day for the first 16 weeks of their lives. The substitutes were fed from five days to eight weeks of age in place of whole milk. Colostrum milk was fed during the first four days. The average daily gain was 1.26 pounds a day in a control group of calves fed about 360 pounds of whole milk, calf starter and hay.

In addition to these differences in gain the general appearance of calves fed whole milk was more desirable. Whole milk contains nutrients in a form that the young calf can readily use.

Differences in gains were greatest at four weeks of age, when calves were weighed every four weeks. After four weeks of age, the feeding of milk substitutes, calf starter and hay resulted in good gains.

Experiments on milk substitutes are being continued this year. At present, whole milk is being fed for the first 10 to 14 days before starting the calves on the milk substitutes. Since milk is the ideal feed for the very young calf, it will give the calf a good start before it is switched to a milk substitute.

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FOR IMMEDIATE RELEASE

Flushing Liquid Manure Keeps Swine System Clean

URBANA--Marti Williamson, LaSalle county hog farmer, spends about 20 minutes a day keeping his feeding floor clean for 200 hogs.

He hand-scrapes the concrete finishing floor, follows it with a water rinse and collects this liquid manure to spread on his fields later. This system works well with normal farm water-line pressure.

Williamson believes that this flushing system keeps his swine facilities clean enough to give him good disease control. He's also bothered less with odors and flies in his hog-raising system.

Cleaning with water alone requires higher water pressures and more water than hand-scraping first and then rinsing with water. Roy Unzicker of Woodford county uses about 1,500 gallons of water for 1,000 hogs each time he cleans. But he washes the floors only once a week until the pigs weigh over 100 pounds and twice a week after that. The average is less than 1/2 gallon of water for each hog daily.

Most farm systems so far use hand-operated hoses and pressures varying from 100 to 125 pounds per square inch, according to D. G. Jedele, extension agricultural engineer at the University of Illinois College of Agriculture.

The University of Illinois Hog-O-Matic system, on the other hand, uses a timeclock-controlled rotating boom with a pressure of about 75 pounds p.s.i. on a 10-foot-long slope. High-pressure systems need a float-controlled reserve water supply tank with a booster pump to give the needed pressure.

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Jedele reports at least 23 liquid manure systems on swine farms in Illinois. None of them is more than a few years old, and most of them were built last year.

If you are considering putting in an underground storage tank to hold liquid manure, make it large enough to hold a week's collection, Jedele suggests. You can figure a minimum of two gallons daily for each hog in the lot.

Several types of pumps are available for cleaning out the storage tanks. Some farmers are using an ordinary four-inch grain auger for pumping liquid manure.

Tank wagons for hauling and spreading liquid manure have been both homemade and custom built. Some have included agitators and some have not, but an agitator appears to be a desirable feature if you are having a tank made.

Spreading devices so far have been mostly homemade, and there has been very little scientific basis for their design. Agricultural engineers need to study the problem thoroughly and help to design efficient and effective collection and distribution systems for liquid manure, Jedele believes.

Floors built to collect liquid manure should be covered to keep rain from flooding the storage tank. Slopes can vary from 1/4 inch to one inch per foot. One-fourth inch is enough slope for the gutters. One-half inch per foot seems to be about right for floors, but one inch per foot may be used in dunging areas.

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TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Pruning Shade Trees, Shrubs, and Grape Vines

by H. R. Kemmerer and Frank W. Owen
University of Illinois Department of Horticulture

URBANA--Contrary to popular belief, shade trees are easy to prune, since you need only to follow their natural form.

For example, the elm tree's natural form is vase-shaped. So do not cut its top because that will make it more bushy than upright. On the other hand, weeping willows are bushy trees. Prune them to give a bushy, full appearance, and not an upright shape.

When beginning to prune, first remove all dead and broken branches. Then thin out crowded wood. These two steps will give the tree more vigor. In American elms, it will also help the trees resist Dutch elm disease.

As a final step, prune any straggly branches that detract from the tree's natural appearance.

During the past winter, many trees suffered severe storm damage. Home owners who have such trees and who aren't sure how to prune them may benefit in the long run by contacting a licensed tree expert. Let him do the pruning, or ask him for advice.

Woody Shrubs: Prune all woody shrubs now except the early-blooming ones. To trim them, wait until after they have finished blooming. Otherwise pruning will remove all of the flower buds.

When pruning woody shrubs, trim either to enhance their natural appearance or to formalize their appearance. For example, prune forsythia according to its natural form. But trim hedges to give them a formal appearance.

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How do you create a formal appearance? Cut the plants to the desired height and shape. Make all cuts at the same level. When pruning hedges, shape them so the top is smaller (narrower) than the base. This allows sunlight to reach the bottom growth.

To create an informal appearance, prune back tall canes or branches to the lateral side growth. Do not make all cuts at the same level.

Regardless of how you prune shrubs, always remove dead and broken branches.

Thin out woody shrubs by cutting back older wood at the base. This cutting permits new shoots to rise, giving the plant a youthful and vigorous appearance. If older wood is not thinned, canes become so tall that they shade out lower lateral growth.

Pruning shrubs will vary with the kind and type of individual plants. But limited space prevents a discussion of these differences here. For more specific information, contact your county farm adviser or write to the Department of Horticulture, 124 Mumford Hall, Urbana. Be sure to include the shrub's name.

Pruning Grapes: Grapevines need moderate pruning to make a medium-type growth that produces quality fruit. Pruning too lightly makes weak growth; but pruning too severely develops overvigorous, unproductive shoots called "bull canes."

Prune grapes in early spring after all danger of extreme cold is past. However, do not delay pruning until the flow of sap becomes so rapid that it will be lost by "bleeding" at the pruning wound.

Grapes must be pruned every year to keep enough bearing wood for good fruit production. Except for the trunks and short stubby bases of arms or older wood, the wood left after pruning is all one year old. And only these one-year-old canes produce fruit.

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The arms (canes selected for renewal) are renewed each year by selection of canes of medium vigor that originate as near the trunk as possible. Leave a single spur with two buds near the base of each arm to furnish canes for renewal the next year. Then cut back the selected arms, leaving about the same number buds on each. Buds should total about 40 to 60 per vine.

The number of buds to leave on a vine will depend on the variety, soil fertility and any climatic or cultural factors that influence vigor.

In training grape vines for trellis growing, select the strongest cane and tie it as high on the trellis as its length will permit. Remove all other canes.

Again, for more detailed information on pruning grapes, contact your county farm adviser or write to the Office of Information, 110 Mumford Hall, and ask for a copy of Circular 468, "Grape Pruning in Illinois."

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3/17/59

ILLINOIS FARMERS' OUTLOOK LETTER

CORN PRICES TOP YEAR-BEFORE LEVEL

Livestock Take More Grain

URBANA, ILLINOIS MARCH 18, 1959

Corn prices have recently been near or above those of a year ago. Grade for grade, prices were up only a cent or two. But because of the better quality of the crop this year, actual prices realized by farmers were up as much as 10 cents a bushel.

Prices to farmers went up to around $1.25 a bushel last summer. The much bigger crop now in farmers' hands and the lower prices of hogs will tend to hold prices down this year. On the other hand, conditions favor a high rate of use for corn, which will tend to lift or support prices.

Supply figures. At the first of January, farm stocks were estimated at 2,696 million bushels, or 9 percent more than one year before. Of this amount, 362 million bushels were under price support loans--some 70 million more than one year earlier. But the flow of corn to price support shelter probably is slower now than it was last year because market prices are nearer the support levels. Last year support levels were $1.40 and $1.10, and this year $1.36 and $1.06.

The government report showed that Illinois farmers had 8 percent more corn on hand January 1 than they had a year before. But farm stocks in many of the cash-corn counties may have been little or no larger than they were last year.

Corn yields per acre were about the same, or smaller, in 1958 than in 1957 in several cash-corn counties. Among these were Lee, LaSalle, Livingston, Iroquois, McLean, Ford, Logan, DeWitt, and Champaign counties. Total corn production in 41 central, eastern, and northern counties was only 3 percent larger in 1958 than in 1957.

Disappearance. The apparent rate of disappearance of corn is much faster this year than in 1957-58. According to USDA estimates, disappearance during the October-December quarter was 986 million bushels, 24 percent more than 12 months before.

More corn is being used this year because the crop is widely spread over the country, and numbers of grain-consuming livestock are up sharply.

The heavy marketings of hogs during the winter showed that farmers were pouring corn into the hog feeders. According to official estimates, farmers are now feeding about 15 percent more

hogs than they were a year ago. And some farmers are making their hogs heavier than they di
last year.

After hogs, poultry rank second as consumers of corn. The number of layers on farms is u
about 3 percent from a year ago. Growers are producing 10 to 15 percent more broilers than the
were at this time last year. And it appears that turkey production will be increased by a few percent

In January, farmers were fattening 11 percent more cattle for market than they were 1
months before. These cattle are heavier, too, thus requiring more feed per pound of gain. Averag
slaughter weights of steers have been up about 50 pounds from 1958 levels.

Exports and CCC sales. Sales of corn by the CCC from October 1 through February amounte
to 93 million bushels, compared to 87 million a year earlier.

Exports of corn from last October 1 through February were about 85 million bushels, prac
tically the same as 12 months earlier.

The next change in the price support level for corn will be up, not down as in 1958. Th
minimum price support level for the 1959 crop will be $1.12 a bushel, compared with $1.06 a
the present time. And, if growing conditions are no better than average, the production of fee
grains will be smaller in 1959 than in 1958, in spite of some increase in corn acreage.

L. H. Simerl
Department of Agricultural Economic

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

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THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, observations and activities at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

We expect to, and generally do, weigh off more livestock gain from grass-legume mixtures than from straight grass pastures. However, this does not mean that grass pastures have no value. They can be used to supplement grass-legumes for grazing. Nitrated grass pastures may furnish some of our earliest grazing.

Tremendous Carrying Capacity

In the spring of 1957, 30 acres of nitrated grass on the Station carried 74 yearling steers for 28 days, from April 8 to May 6. During this period the steers gained at the rate of 1.25 pounds a head daily. However, it was fortunate that we had grass-legume mixtures to fall back on after the spring flush on nitrated grass. For the rest of the grazing season, the carrying capacity of the nitrated grass dropped to about one steer an acre, and average daily gains fell below one pound.

Grass-Legume Pastures Consistent

Thirty acres of pasture with the same grasses as the nitrated grass pastures, but with legumes in addition, started producing average daily gains of 1.33 pounds and never fell below 1.25 pounds at any period throughout the summer. At no time were the grass-legume mixtures stocked at a rate of fewer than 1½ steers an acre.

Per-Acre Gains Higher for Grass-Legumes

The grass-legume mixtures produced 100 pounds more beef on each of the 30 acres than did the nitrated grass pastures. The per-acre gains for the 168-day-period grazing season totaled 326 pounds for grass-legumes and 227 pounds for the nitrated grass.

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Gains per Steer Higher on Grass-Legumes

For the entire grazing season, the 30 acres of grass-legume pastures were stocked with an average of 43 steers, while the nitrated grass averaged 38 yearling steers. Rate of gain of the 43 steers was 1.37 pounds a head daily, or a total gain of 225 pounds a steer. During this same season the 38 steers on nitrated grass made an average daily gain of 1.06 pounds, or a total of 178 pounds a steer.

Grass-Legumes Mainstay

For southern Illinois soil and moisture conditions, grass-legume pastures are the backbone of a pasture program. But, as we look at the very high carrying capacity of nitrated grass, 74 steers on 30 acres for 28 days, we realize that nitrated grasses do have a place in a well-rounded pasture program.

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3/18/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Forecast Widespread Use of Hay Pellets

URBANA--A revolution in Illinois hayfields lies ahead if the forecast by two University of Illinois researchers proves true.

Velmar Davis, USDA agricultural economist, and George Pickard, agricultural engineer, estimate that by 1975 about half of all Illinois farmers will harvest their hay in pellet or wafer form. Baling hay is expected to decline to about 30 percent of the crop, and chopping and harvesting loose hay to about 20 percent.

At least 12 companies have experimental work under way on pelleting and wafering hay, and four or five have developed experimental machines. Thus it is likely that we will see pelleting machines in use on farms within the next five years, Pickard and Davis report.

In recent years about 90 percent of all Illinois farmers have baled their hay and 5 percent put up chopped hay and 5 percent loose hay. Fifteen years ago these farmers put up 71 percent of their hay loose, baled 27 percent and chopped about 2 percent.

These forecasts will appear as part of the Farming 1975 exhibit planned in the mechanization area of the 1959 University of Illinois Farm and Home Festival on April 2, 3 and 4. Pickard will also discuss "Pelleting--Present and Future" during the Saturday morning program. More than 100 exhibits in six areas, a top-notch speaking program and many other activities are scheduled for the three-day event on the College of Agriculture campus at Urbana.

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FOR IMMEDIATE RELEASE

Festival Preparations in Final Week

URBANA--Lights are burning late, exhibit builders are working at a rapid pace, and new sights are taking shape on the south campus of the University of Illinois this week as College of Agriculture students and staff put the final touches on the 1959 Farm and Home Festival.

Following the theme, "Research for Tomorrow," this year's Festival features more than 100 exciting exhibits in the areas of livestock, crops and soils, mechanization, food industries, family living and educational services. In addition, more than 70 University faculty members are featured in a four-auditorium speaking program that runs through all three days of the Festival.

Visitors will find information and registration centers throughout the exhibit areas in the Stock Pavilion, Agricultural Engineering Building, Agricultural Engineering Research Laboratory, Bevier Hall (home economics building), a plastic greenhouse, a special air-house, the Animal Sciences Laboratory and the Veterinary Medicine Building.

A Town and Country Art Show will feature more than 200 of the top paintings selected from district shows throughout the state this winter. University art instructors will exhibit and demonstrate handicrafts.

The Child Development Laboratory, floriculture greenhouses and other College of Agriculture laboratories and classrooms will be open for inspection.

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Square and folk dancing fans will have the opportunity to see special exhibitions, learn some new steps and participate in dancing themselves on Thursday and Friday evening. The annual College of Agriculture student dance, the Plowboy Prom, will be held on Saturday evening, April 4, for all students, faculty and Festival guests. Illinois Farm Sports Festival basketball finals will be played off on Saturday in Huff Gym. A Town and Country Talent Show is also on the Saturday evening program.

Saturday is Ag Student Guest Day and Home Economics Hospitality Day. High school students will hear college students and staff tell about college courses and costs and also career opportunties for ag and home economics graduates. Special tours and discussions are scheduled for students who are interested in attending college.

Signs on the main highways entering Champaign-Urbana will direct Festival guests to special parking areas near the exhibits. For those who want to stay overnight, a special housing and information booth will be operating in the Stock Pavilion.

Each day a pork-chop barbecue lunch will be serve in the Stock Pavilion. Friday's menu also includes barbecued fish. The home economics cafeteria will serve lunch to Festival guests. Snack bars will also be located in the exhibit areas.

Festival exhibits will be open on Thursday and Friday from 9 a.m. to 9 p.m. and on Saturday from 9 a.m. to 5 p.m. The first Festival, held in 1958, attracted more than 15,000 people. Chairman W. N. Thompson extends a special invitation to everyone to come back this year and bring friends. "We'll have enough for 30,000 to see and do this year," he says.

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FOR IMMEDIATE RELEASE

UI Offers Many Scholarships in Ag and Home Ec

URBANA--Many scholarships in agriculture and home economics, ranging in value from $100 to $1,000, are available to freshmen entering the University of Illinois this coming fall.

Cecil D. Smith, assistant dean in the College of Agriculture, urges all high school seniors who are interested in applying for one of the scholarships to do so immediately. In some instances competitive examinations to determine scholarship winners are held in each county during April.

Here's a listing of available scholarships, with a brief explanation of their value and how they are obtained.

Tuition Scholarships

Agriculture and Home Economics County Scholarships: Each county has one each of these scholarships, which pay tuition for four years. They are available to freshmen entering either agriculture or home economics. Winners are selected on the basis of a competitive examination.

General County Scholarships: The number of these scholarships is based on county population. Paying tuition fees for four years, they are awarded on the basis of competitive examination.

Scholarships for Children of Veterans: These are available to children of World War I, II or Korean veterans. Each county offers only one for each. Based on competitive examination, they pay tuition fees for four years.

(For more information about the three above scholarships, contact your County Superintendent of Schools.)

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Cash Scholarships

Smith-Douglass Company Agricultural Scholarships: There are three of these scholarships available each year to freshmen entering agriculture. They pay $1,000 for four years.

Sears-Roebuck Scholarships: Each year the Sears Roebuck Foundation awards 20 scholarships to entering agriculture freshmen, and four to entering home economics freshmen. They are usually worth $200 each.

Kroger Scholarships: Paying $250 each, there are six of these scholarships available to entering freshmen in either agriculture or home economics.

Federal Land Bank Scholarships: Two of these worth $500 each are awarded each year to entering agriculture freshmen.

Illinois State Restaurant Association Scholarships: These are available to freshmen entering restaurant management. They pay $100 to $150.

Cash scholarships are awarded on the basis of scholarship, leadership and financial need. For more information and an application form, write to C. D. Smith, College of Agriculture, Urbana.

Dairy Industry Scholarships: These are offered to freshmen entering dairy technology. The number varies, but each pays $1,000 for four years. Secure application blanks from P. H. Tracy, College of Agriculture, Urbana.

Wright Scholarships: The number of these scholarships varies. They are offered to any UI student, with preference to those in agriculture. Each pays $200 to $400 a year plus fees. Request application blanks from the Director of Undergraduate Scholarships, University of Illinois, Urbana.

General Assembly Scholarships: Available to any UI student, one is offered by each General Assembly member. They cover tuition expenses. For more information, contact your State Representative or Senator.

Detailed information about scholarships, campus housing and college life will be presented during the College of Agriculture's Student Guest Day on April 4. Separate sessions will be held for students interested in agriculture and those interested in home economics. The Ag Guest Day program begins at 9:00 a.m. in Gregory Hall; the Home Ec Guest Day program begins at 8:30 a.m. in Lincoln Hall. Both programs are in conjunction with Farm and Home Festival, April 2, 3 and 4.

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FOR IMMEDIATE RELEASE

Feature Free Soft-Serve Ice Cream At Festival

URBANA--Free soft-serve ice cream awaits visitors to a dairy technology exhibit at this year's University of Illinois Farm and Home Festival April 2, 3 and 4.

In an effort to reduce public confusion about this new dairy product, the exhibit tells the complete soft-serve story. It shows how the product is made, its food value and its importance to the dairy industry.

Soft-serve, sold by such franchised organizations as Dairy Queen, Dairy Delight and Tasty Freeze and by many independent companies, is one of the fastest growing new frozen dairy products on the national market.

And since soft-serve is so popular, Joe Tobias, UI ice cream specialist in charge of the exhibit, says the machine will operate at unannounced periods throughout the Festival to give all visitors equal opportunity to sample free cones.

Any public confusion about soft-serve certainly hasn't hurt its popularity. After about 12 years on the national market, this youngest branch of the dairy industry already constitutes 8 percent of all frozen dairy production. This means that the American public eats nearly 64 million gallons of soft-serve annually.

And the future of soft-serve looks even more promising. Tobias predicts that improved services and increasing consumer acceptance may boost annual production to 100 million gallons within the next few years.

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FOR IMMEDIATE RELEASE

Epidemic Tremor Always a Danger to Chickens

URBANA--If young birds in the poultry flock shiver a lot these chilly days, make sure that it is just the weather and not epidemic tremor.

Dr. L. E. Hanson of the University of Illinois College of Veterinary Medicine says that epidemic tremor, also called avian encephalomyelitis or "a.e.," is always a danger to chickens up to 12 weeks old.

Although death losses from the virus disease usually total less than 10 percent, they sometimes go as high as 20 percent. Death usually comes from starvation because the seriously affected birds can't eat or drink.

Trembling of the neck muscles and paralysis of the leg and wing muscles are the most common signs of epidemic tremor. Chicks may also stagger, walk backwards on their hocks or lie on one side, completely paralyzed.

Other diseases, such as Newcastle disease or fowl paralysis, may produce similar signs, and laboratory examination is necessary to diagnose the disease accurately.

The virus that causes epidemic tremor can be transmitted either by direct contact with infected chicks or through the egg from infected adult carriers. There is no commercial vaccine and no effective treatment for epidemic tremor at present, but some experimental vaccines are now being tested.

Dr. Hanson says that confining less seriously affected birds in a small pen within easy reach of feed and water will help to cut down death losses and prevent the disease from spreading by direct contact. Seriously sick chicks should be destroyed, and their carcasses burned or buried.

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FOR IMMEDIATE RELEASE

To Feature "Laboratory Zoo" at Festival

URBANA--"Come to the animal fair" is the special invitation issued by the livestock exhibit area during Farm and Home Festival at the University of Illinois on April 2, 3 and 4.

An unusual exhibit featuring a "laboratory zoo" made up of the different animals used in laboratory research at the Illinois Agricultural Experiment Station will be set up in the Stock Pavilion on the University's south campus.

Among the different laboratory animals on display will be white mice, rabbits, hamsters, chinchillas, young goats, calves, lambs, pigs, chicks, guinea pigs and Japanese quail. Festival guests will be able to see how livestock researchers use these animals to uncover the basic information needed to produce meat, milk and eggs more efficiently.

Of interest to livestock producers will be exhibits concerned with the veterinary clinic of the future, pneumatic feed conveying, floor heating farrowing stalls, the best livestock enterprise for your farm, frequency of feeding cattle, environment studies for baby pigs and how vitamin B_{12} is worth its weight in gold.

Dairymen will want to see the beginnings of life in cattle, how milk is made, effect of inbreeding on lactation, what goes on inside a cow's stomach and how the dairy sire program is carried on.

Other exhibits on pullet rearing costs, debeaking laying hens and increasing the number of eggs will be of special interest to poultrymen.

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Visitors interested in the "unusual" will be awed by the hen that lays radioactive eggs, by broody roosters and by the hatching of sex-linked chicks.

Other exhibits in this area of "Research for Tomorrow--in Livestock" will show the results of beef performance testing and feeding fatty acids to sheep and a display of carcasses and carcass quality in the meats cooler.

In this area both producers and consumers of meat, milk and eggs will be able to get a better appreciation of what livestock research will mean to them in the future.

A barbecue pork-chop luncheon will be served each day in this area.

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3/18/59
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FOR IMMEDIATE RELEASE

lan Study on Farrowing Units

URBANA--How to provide the most desirable amount of heat or ooling for sows and litters will be studied in a new research program t the University of Illinois.

This new research is planned to develop a farrowing unit that ill control ventilation and provide the best temperatures for maximum ig growth at any time of year in the brooding areas.

A second part of this experimental work will be to work oward providing this environmental control at least cost to the swine rower, said F. B. Lanham, head of the Department of Agricultural Engineering at the UI College of Agriculture. Research will be done cooperatively by the Departments of Agricultural Engineering and Animal cience.

The first step will be to design a package unit that will rovide small amounts of ventilation, heat and cool air within the best anges for both sows and pigs, Lanham pointed out. A new farrowing arn will be built at the Urbana Swine Farm, in which the studies will e made over the next two years.

Part of the funds for supporting this research program have een secured through a grant of $7,500 from the Granite City Steel ompany, Lanham said. A J. Muehling, research associate in agricultural ngineering, and A. H. Jensen, assistant professor of animal science, ill do the laboratory work under the supervision of E. L. Hansen, head f the farm structures division at the College of Agriculture.

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Too much heat for the farrowing house affects the pigs' resistance to colder temperatures, Lanham says, and is too costly. On the other hand, air conditioning the entire farrowing house is also costly.

What the researchers will be looking for will be a packaged unit that can provide the controlled ventilation, heating and cooling that are wanted. It will be designed to go in various types of present buildings without remodeling. It may make new buildings cheaper to build.

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RAJ:cam
3/19/59

FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending March 20, 1959, is prepared as a special service by the University of Illinois grain marketing staff.)

Planting Intentions Report Shows More Corn, Less Soybeans

URBANA--Farmers will actually plant different amounts of corn and soybeans than the planting intentions report shows, according to T. A. Hieronymus, University of Illinois agricultural economist. This March report, released this past week, shows that farmers will increase corn acreage by 12 percent and cut soybeans by 7 percent compared with last year.

Last year farmers actually planted one million acres above their March 1 intentions, he points out. This year's crop acreage will depend on weather during the planting season and how farmers change their intentions after seeing the over-all prospective planting report.

Weather during the growing season becomes the major factor in determining final production, Hieronymus emphasizes. Should final corn acreage climb 12 percent, as the intentions indicate, and farmers get average yields based on the trend of the last 10 years, the 1959 corn crop would be 3.6 billion bushels. This would be about 200 million below last year.

With the same assumptions on soybean acreage and yields, the 1959 crop would be 463 million bushels--a drop of 110 million bushels from 1958. But the carryover from 1958 will prevent any sharp price increase with a crop of this size.

Farmers intend to plant less oats and grain sorghum and more barley. Using the 10-year average yields for these crops, along with 3.6 billion bushels of corn, total 1959 feed grain production could reach 143.1 million tons. Farmers produced 157.7 million tons in 1958 and 142.9 million tons in 1957.

In spite of increased acreage prospects, 1959 feed grain production and use will be about equal if we have a normal growing season, Hieronymus concludes.

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3/20/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Farm and Home Extension Leaders Plan Festival Tour

URBANA--More than 200 farm and home leaders from throughout the state will be special guests of the University of Illinois College of Agriculture during Farm and Home Festival on Friday, April 3, Associate Director of Extension W. G. Kammlade announced today.

During their visit these members of county agricultural and home economics councils will have a chance to see all exhibit areas, attend speaking programs of their choice and inspect University classrooms, laboratories and greenhouses.

At noon two representatives from each county, along with thei farm and home advisers, will attend a special luncheon arranged for them in the Illini Union ballroom.

Extension council members provide guidance to the farm and home advisers in each county of the state. This trip to the Festival will give them a more complete picture of the College of Agriculture that should be helpful in carrying out their council duties.

(Editor: You can get names of those attending from your county farm or home adviser.)

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3/23/59
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FOR IMMEDIATE RELEASE

Fewer Farms and Farmers by 1975, Festival Exhibit Shows

URBANA--By 1975 Illinois farmers will have less land to farm because subdivisions, highways and lakes will take about 2 1/2 percent more of our present cropland out of production. This is one of the points covered in the bird's-eye view of 1975 farming to be presented at the 1959 University of Illinois Farm and Home Festival on April 2, 3 and 4 at Urbana.

Planned by Roy N. Van Arsdall, USDA agricultural economist working at the University, this exhibit also tells visitors to expect these developments in agriculture by 1975:

There will be fewer farms and farmers. The present trend toward fewer and larger farms will continue. Larger farms will mean larger investments. Farmers can expect average investments to run close to $80,000 compared with around $41,000 today.

Farms will be more mechanized. Farmers will develop more mechanized systems for handling whole enterprises.

Crop improvement will continue. Illinois farmers can expect average corn yields to climb to around 76 bushels an acre compared with 65 bushels now. Soybean yields may rise to around 30 bushels average compared with 27 bushels at present. Wheat yields may move up to around 40 bushels compared with 30 bushels now. Hay production could average 2.7 tons an acre compared with around 2 tons now.

Livestock producers will reach greater feeding efficiency. Hog feeders may expect 4.5 pounds of feed to put on a pound of gain

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compared with 5.3 pounds now. Cattle feeders should make a pound of gain on 8.8 pounds of feed compared with 9.6 pounds now. Broiler growers will be able to get a pound of gain with 2.2 pounds of feed whereas it takes 3 pounds now.

But with these production advances will also come rising production expenses. Van Arsdall estimates that costs will take about 65 percent of total gross farm income compared with about 58 percent in recent years. Some of this rising expense will be offset, however, by a larger income per farm.

With all these farming changes, farm population will continue to decline and urban population will grow. Whereas about 9 percent of our Illinois population now live on farms, this figure may drop to 3 1/2 percent by 1975. While 14 percent live in towns of less than 2,500 now, this proportion may drop to around 10 1/2 percent. And urban population that now makes up 77 percent of our total may rise to 86 percent by 1975.

This exhibit showing farming changes by 1975 is only one of more than 100 new and exciting displays planned in six major areas at the 1959 Farm and Home Festival. All exhibits and speaking programs will be on the south campus of the University at Urbana.

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3/24/59

FOR IMMEDIATE RELEASE

Study Shows Personal Property Tax Collection Costs Out of Line

URBANA--Illinois residents are paying three times as much for administrative costs in the assessment and collection of personal property taxes as for real estate taxes. This is the finding of a recent survey conducted by N. G. P. Krausz, professor of agricultural law at the University of Illinois.

The survey, taken in five typical Illinois counties, shows that costs of collecting personal property taxes averaged $255 for every $10,000 in taxes collected. Real estate tax collection costs averaged only $80.09 for the same amount of taxes. The costs for collecting state taxes runs about $100 per $10,000 collected, Krausz points out.

On the average, personal property taxes in 1957 made up about 18 percent of total taxes collected by the counties surveyed. Real estate taxes accounted for 78 percent.

Here are some of the costs of tax collection and how they compared in the study:

Publication costs for personal property assessment lists ran $46.03 for every $10,000 in taxes collected. For real estate taxes, the comparable cost was only 96 cents. Part of the reason for the higher costs of personal property tax is that the law requires publishing the assessment lists every year. Complete real property assessment lists need to be published only every fourth year.

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In the County Clerk's office, the cost per tax dollar collected was more than four times as great for personal property as for real property. Officials estimated that at least 50 percent of the costs assigned to property taxes must be used to pay employees engaged in preparing personal property tax records. So a tax yielding only 18 percent of total revenues costs the same as one yielding 78 percent.

For every $10,000 personal property tax collected, $39.90 was paid for county clerk's office salaries. At the same time for every $10,000 real property tax collected, only $8.93 was used to pay salaries related to the real property tax.

In the County Treasurer's office, the cost per dollar of tax collected was almost three times as great for personal as for real property taxes. For every $10,000 in taxes collected, $93.83 was paid for salaries to collect personal property taxes, while $36.71 was used to pay salaries related to the real property tax.

The Supervisor of Assessment receives assessment books from the county clerk, calls a meeting of the township assessors, delivers the assessment books to them and generally takes charge of real and personal property tax assessment within a county. His costs of salaries and expenses for each tax dollar were almost twice as large in 1957 for personal as for real property. For every $10,000 collected in personal property taxes, $38.28 was absorbed in running the Supervisor of Assessment's office. At the same time, $19.58 was absorbed for administering a like amount of real property tax.

The Board of Review acts as a final administrative authority on individual tax assessments. It also examines the tax roll to determine how completely and how uniformly assessments have been made.

No accurate division between time spent on personal property and real estate taxes is available. But Krausz estimates that at least half of the time was spent on personal property taxes. This would have amounted to $5.74 for every $10,000 of real and personal property taxes collected.

Township assessors and their deputies are charged with assessing every item of personal property in their district. Because of greater volume of personal property and the required annual assessment, costs by township assessors ran more than three times as large for personal as for real estate taxes.

For every $10,000 in tax collected, the township assessors had $22 in expense for personal property tax and only $7 for real estate taxes.

Maintaining assessors' and collectors' books cost about nine times as much for personal property as for real property. For every $10,000 personal property tax collected, $10.19 went to keep up books compared to only $1.17 administrative costs for real property.

Krausz points out that taxpayers often overlook the hidden costs in collecting taxes. These costs devour the very money which they believe, and are entitled to believe, is being used for schools, roads and other services.

Two sessions of the speaking program at the University of Illinois Farm and Home Festival on April 2, 3 and 4 are devoted to tax and financial problems. On Thursday afternoon, April 2, Professor C. L. Stewart will discuss land taxes, and Professor H. K. Allen will discuss personal property tax reform. On Saturday morning, April 4, Professor N. G. P. Krausz will discuss inheritance taxes, joint-tenancy and use of corporations in the farm business.

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3/24/59

FOR IMMEDIATE RELEASE

Festival to Feature Three-way Automatic Feeding Exhibit

URBANA--A single full-sized automatic feeding setup will grind, mix and deliver three different livestock rations via high-pressure pneumatic conveyor at the 1959 Farm and Home Festival.

Visitors to the University of Illinois Stock Pavilion April 2, 3 and 4 will see how such a system could furnish rations for cattle, hogs and chickens all at the touch of a button, says H. B. Puckett, USDA agricultural engineer in charge of the display.

Use of one automatic feeding system to feed several kinds of livestock will help to make the automatic equipment pay its way on more Illinois farms, Puckett observes. An automatic feed-handling system can run 24 hours a day if necessary to feed more livestock.

The high-pressure pneumatic conveyor in the Festival exhibit is especially suited for carrying ground feed to several different locations. This system uses air pressure to force ground feed through metal tubing no bigger around than a 50-cent piece.

With this system the tubing can bend around corners or run underground or overhead to put ground feed where it is needed. A simple shutoff valve sends the feed to the right place.

The pneumatic conveyor is still too expensive for farm installations. But agricultural engineers expect that the device may some day see wide use in automatic feed-handling design.

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3/23/59

FOR IMMEDIATE RELEASE

UI Developing Gardening Program for "Senior Citizens"

URBANA--Growing older does not necessarily mean the end of exciting, interesting and creative activities. University of Illinois horticulturists have now designed a wide range of gardening activities that will suit the hardiest or most limited physical ability of any "senior citizen."

These activities include growing plants in nutrient solutions instead of soils, growing unusual plants, developing new flower varieties and other plants and cultivating plants with such unique growing methods as indoor lighting.

This gardening program is part of the University's work in developing creating and worthwhile activities for older people. It may be carried out through agencies that work with older people, through clubs and organizations or by the individuals themselves.

During the UI Farm and Home Festival, April 2, 3 and 4, the Department of Horticulture will have a vivid exhibit portraying suggested gardening hobbies. In addition, the exhibit shows how gardening may serve the older person by providing physical activity. Gardening methods can be adapted to anyone, whether he is confined to a wheelchair or can move about freely.

Gardening also serves as a creative activity in which a person can develop original, beautiful or unusual results. It provides a constructive use of leisure time that in turn gives a sense of achievement.

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Working in the plant world also brings a mental and emotional fulfillment and gives a person individual freedom in conducting his own project at his own leisure.

Jack Butler, horticulture assistant, is in charge of developing this gardening program. Work began last July and will continue for another two years.

Butler points out that gardening is already a popular hobby of many older and retired persons. As an example, he cites an Australian sample survey made of people over 55 years of age. Results showed that 79 percent of the men and 37 percent of the women listed gardening as a favorite hobby. No other hobby was nearly so popular with the men. But, as might be expected, cooking and sewing are also favorites with the women.

According to Butler, only 9 percent of today's total U. S. population is over 65 years of age. But estimates show that this figure will increase to 14 percent by 1980.

Persons wishing to get more information about a gardening program for older people may write directly to the Department of Horticulture, 124 Mumford Hall, Urbana. Or they may visit the gardening exhibit at Farm and Home Festival. Someone will be there at all times to discuss the program and to answer questions.

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3/23/59

FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Facts About Mulching

By J. R. Kamp and Frank W. Owen
University of Illinois Department of Horticulture

URBANA--Recent warm weather has probably caused home gardeners to think they should remove winter mulches. But it's still too early.

Illinois will probably have several more below-freezing temperatures. If plants are unprotected, frost will nip the buds and new growth. So do not disturb mulches covering bulbs and perennial flower beds like roses. Wait until around April 1 in southern Illinois and April 15 in the northern section. Remember, though, that you do not need to completely remove mulches on perennial flower beds.

Within the next two weeks, mulches covering strawberry beds can be loosened. Shake up the mulch either by hand or with a pitchfork. Remove some of the material directly over the plants to the middle of the rows. Allow the plants to grow up through the remainder. If frost threatens, cover them again temporarily.

Although winter mulches should not be removed yet, gardeners can add soil mulches around shrubs, evergreens and raspberries now. Such materials will discourage weed growth this summer and also help to conserve moisture.

Soil mulches act as a sponge, soaking up moisture and rainfall. They allow it to soak into the soil and thereby prevent surface evaporation. This insures an even moisture supply during the growing season.

Most mulching materials are classified as either organic or inorganic. Organic materials are broken down by soil microorganisms and incorporated as part of the soil. But inorganic materials are not broken down.

Some examples of organic mulches include leaves, peat moss, straw, sawdust, shavings, grass clippings and paper.

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Paper mulches are not made of ordinary paper. Instead, it is a special paper treated with a fungicide and a preservative. These materials help to control diseases and make the paper more durable. This material conserves moisture well and completely eliminates weed growth. Its best use is probably in the vegetable garden, particularly on tomatoes.

If straw is used, buy it one year in advance. Then cut the wires and leave the bales outdoors so that any weed seeds in the straw will sprout. But the weeds will not mature and after one year the straw will be freer of weeds.

Straw, as well as sawdust and shavings, will control weeds if they are applied deeply enough. But it's impractical to apply them more than 3 to 4 inches deep.

Gardeners can either apply grass clippings directly to the soil as a mulch or incorporate them into a compost pile. Grass clippings, however, may cause plant stems to rot if they come into contact with them. So it is recommended that they be used in a compost pile.

If organic materials are used as a mulch, add more fertilizer to the soil. For every one inch of mulch, apply an additional 1/4 pound of fertilizer for every 100 square feet. Soil testing will accurately determine just how much fertilizer a soil needs.

Home owners who wish to have their soil tested may send samples to the Floriculture Building, University of Illinois, Urbana. Enclose $1.00 for each sample sent. For instructions on how to take a soil sample, contact your farm adviser or write to the above address.

Two examples of inorganic materials are vermiculite and plastics. Vermiculite is a porous granular substance that holds moisture well.

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Plastic sheets make a good mulch but must be perforated so that rain can reach the soil. Black plastic completely eliminates weed growth. But white plastic allows some weed growth underneath. Ground covered with white plastic can be fumigated to control weeds, but this is not practical for home gardeners.

Where can you buy mulching materials? Usually at hardware stores, construction companies and nurseries. Of course organic materials such as leaves and grass clippings are found around the home.

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PAC:cm
3/24/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR IMMEDIATE RELEASE

Special to Southern Illinois Daily Newspapers

Cooperation Helps Southern Illinois Livestock Growers

URBANA--A group of Southern Illinois livestock growers have pooled their talents to get better prices for their produce.

And their efforts paid off last year for a total gross income of $343,818 to growers in Johnson and surrounding counties.

Main activity each year of the Egyptian Livestock Association, the name of their organization, centers around the feeder cattle sale at the Dixon Springs Experiment Station in Pope county. The 1958 offering on October 2, 1958, saw 1,820 head of cattle sold for a total of $262,184. This was the record dollar sale and in numbers of cattle was second only to the 1956 sale when 2,461 head went on the block.

Of the 162 livestock producers who consigned cattle to last year's sale, 82 were from Johnson county.

On May 15 last year, the Association held its first feeder pig sale. The 844 feeder pigs sold then brought $19,658. Consigners got from $5 to $10 more for each pig than the going price on the farm in this sale.

Pricewise, the second sale on October 23 was not as spectacular as the first sale. But the producers still got more by selling their pigs in this sale than they would have at the farm. The 1,380 head consigned brought $25,264.

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A lamb marketing program started in 1956 by the Association was continued last year. The Illinois Livestock Marketing Association again served as marketing agent for the six lamb pools. The 1,799 head of market lambs sold in the pools brought in $26,985.

Finally, the Egyptian Association sponsored its first wool pool in 1958 at the Dixon Springs Station. Producers who sold their wool through this pool pocketed an extra $2,500 over what they would have received without the benefit of the pool.

Average price of 41 cents a pound that these producers got for their wool in this pool was 11 cents a pound above the country price. The entire 22,880 pounds of wool consigned to the pool was fleece graded, weighed by grades and sold to the high bidder.

High interest in these activities of the Egyptian Livestock Association among the Southern Illinois livestock producers has been generated by the proved success of the ventures, according to O. Burr Ross, head of the Department of Animal Science at the University of Illinois. Local farmers were eager to get the other marketing programs started because of the success of the annual feeder calf sales. This success is measured not only in higher prices received by the producers, but also by a general upgrading of all the calves being produced in the area.

Need for these programs has arisen out of the character of this extreme Southern Illinois farming community. Many small farm units there each produce small numbers of livestock. In most cases these animals also vary considerably as to size, age and quality. Some

of the leading livestock producers in the area felt that one answer to this problem might be a marketing program that could offer livestock for sale grouped into uniform lots and in larger numbers.

Accordingly, the Egyptian Livestock Association was formed in 1950 and the first feeder calf sale was held that fall. It was a huge success.

More than 1,500 farmers attended that sale and some took part in the spirited bidding. A total of 595 head of calves sold for $97,030. Consigned calves had been first pooled, graded, sorted and sexed into uniform lots. Sale results clearly showed the producers the advantage to them of having good quality feeders for sale. Grading and sorting was done by livestock extension specialists from the University of Illinois and from the Dixon Springs Station staff.

Beef cattle numbers in Johnson county had been growing into an enterprise large enough to warrant planning efforts and time involved by members of the county and state Extension staff members, Ross points out. Many of the farmers by then in the beef business had switched over from a dairy enterprise. Effects of dairy blood in the beef calves was all too noticeable.

A second undertaking by the Association in 1950 was buying 17 registered Hereford bulls at Gunnison, Colorado, and selling them to local farmers at cost.

Success of the program took a big jump forward in 1951 when 1,098 head of calves and yearlings sold for $202,834 at the second annual sale. The top individual, a 390-pound calf, brought $45.50 a

hundredweight. Differences between good and poor quality calves was also ably demonstrated to the farmers attending when good quality calves averaged $38.68 a hundred pounds as compared with $30.04 for the poor quality calves.

In 1952, the Association brought 44 good quality grade heifers into the area and sold them at cost to producers who wanted to further upgrade their herds. A permanent set of sale pens was built also in 1952 at the Dixon Springs Station.

Directors of the Association screened the 1,600 head of calves consigned to the third annual sale. They reduced this number to 1,275 by eliminating all animals showing dairy breeding and those of poor quality. This screening process served to educate the producers about quality in calves as well as to improve quality of calves being offered for sale.

As Ross points out, it is not easy to forget the reasons given when you are told that your product cannot be marketed. The committee also was able to discuss with the farmers other good management practices about feeding, disease control and dehorning as they visited the farms to screen the offerings.

The Association contributed funds to the University of Illinois in 1955 to build a sale barn at the Dixon Springs Station. This barn proved its worth the first day of the annual sale that year when heavy rainfall would have made the sale difficult to conduct under a tent as in former years.

Interest in the Association feeder calf sales as measured by the increasing numbers of good quality calves being offered for sale

each year resulted in the first lamb pool in 1956. Six pools that year sold a total of 2,508 lambs. Income from these pools was $39,895. Sheep producers benefited from these pools by selling their lambs in large, graded lots and from lower transportation costs.

In developing their four different marketing programs, the members of the Egyptian Livestock Association and local farmers have looked to the Cooperative Extension Service and the Dixon Springs Experiment Station staff members for guidance and assistance, Ross says. Time spent in helping the Association develop these programs has resulted in better livestock for Southern Illinois, higher incomes for small producers in the area counties and better understanding there of all aspects of the Extension educational program.

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RAJ:cm
3/24/59

ILLINOIS FARMERS' OUTLOOK LETTER

HOG PRODUCERS PLAN ORDERLY INCREASE IN PRODUCTION

URBANA, ILLINOIS MARCH 25, 1959

The most important livestock news issued in March was the quarterly Pig Crop Report. The report indicates that farmers are increasing hog production in a desirable and orderly manner. This information should be encouraging to corn growers, hog producers and pork-chop eaters.

REMAINING 1958 FALL PIGS. The report showed that on March 1 farmers in nine leading states had 11,906,000 hogs three to six months old. That is 15 percent more than they had a year ago. On the other hand, it is considerably less than the 22 percent increase over the year-before figure reported last December.

Market outlook for the April-June quarter. Marketings will shrink at least as much as usual during this period, but will total some 14 to 18 percent more than in the like period of 1958. Prices should work up to $18 or $19, or about halfway between the recent winter low and the 1958 summer high.

EARLY 1959 SPRING (OR WINTER) PIGS. Farmers in the nine states had 12,947,000 head of spring pigs already on the ground by March 1. Included in this grouping were all pigs born after December 1, but more than half of them were probably February pigs.

The number of spring pigs saved in the winter quarter was only 11 percent larger than was saved the year before, although the number of sows farrowing was up 12 percent. Cold weather and exceptional disease losses cut the number of pigs saved per litter by 1 percent.

Market outlook for the July-September quarter. Market supplies will increase slowly after early July. Total market receipts for the quarter appear likely to be only 10 to 15 percent larger than in 1958. Prices may fluctuate around $17 to $19 compared with $20 to $23 last summer.

LATE SPRING AND SUMMER FARROWINGS. Farmers reported that they planned to have 3,701,000 sows farrow in March, April and May, the last half of the spring farrowing period. This number would be only 9 percent more than farrowed the year before. Farrowings in these months last year made up 63 percent of total spring farrowings.

Farmers reported that they planned to breed 2,287,000 sows for farrowing in the June, Ju and August period. This number would be 9 percent more than farrowed in the same months last yea The USDA report did not list farmers' plans for later fall farrowings, but we look for some increa then too.

Market outlook for next fall and winter. Market supplies seem likely to be 10 to 12 perce larger than they were last fall and winter. In comparison, population growth will be less than percent, although spendable consumer income may be up 4 to 6 percent. Supplies of competiti meats, poultry and beef, will be up at least 5 percent.

Hog prices ranged mostly between $15 and $19 last fall and winter and averaged about $1 Corresponding prices for next fall and winter seem likely to be about $3 lower. Such prices wou make some money for low-cost producers, and hog production might increase a little again in t spring of 1960. But guaranteed prices for corn vs. none for hogs will tend to prevent an excessi increase in hog production.

L. H. Simerl
Department of Agricultural Econom

THE UNIVERSITY OF ILLINOIS
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Urbana, Illinois

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THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, observations and activities at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

As surely as the needle of the compass guides the mariner to his port, he needle of the scales continues to guide Dixon Springs' cattle researchers on he way to beef herd improvement.

electing Herd Sires

On Monday, March 23, 48 two-year-old bulls received their final check to etermine whether they would go to market for slaughter or remain to serve as sires n the Station herds. Bulls from the fast-gaining herd are selected solely on their ate of gain. Bulls from the early-fattening herd are selected solely on fleshing. ulls from the control herd--well, it just doesn't matter; each has as much chance s another, and their numbers are pulled from a hat. The only purpose of the con- rol herd is to maintain the status quo, a place to measure from in arriving at the istance the other two herds have gone forward or backward.

In most performance-testing programs, a measure of gain rate from weaning o one year of age is accurate. However, in the Station herds, we are carrying the ulls to two years of age. We feed them for two winters on a ration that is half roughage and half concentrate and graze them for one summer. This year's group of wo-year-old fast-gaining bulls averaged a gain of 678 pounds in 503 days compared with 639 pounds for the early-fatteners and 653 pounds for the controls.

During the 503-day test, the fastest gaining bull gained 820 pounds, while he slowest gaining gained only 515 pounds. Since the gaining ability of cattle is highly inherited characteristic, it is not hard to see the economic importance of eeding the scale when selecting herd sires. A difference of over 300 pounds in gain during the period in which cattle are generally grown and fattened for slaugh- ter can mean the fattening or the flattening of the cattle feeder's pocketbook.

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Quality?

Now to make a good story better, without this gain picture and a difference in size we would have had a hard time choosing between these two bulls. According to the expert grading eyes of Station Superintendent Bob Webb and Dick Carlisle and Don Walker, University of Illinois livestock extension men, both bulls--the highest and the lowest gainer--graded choice in type.

The Illinois Extension Service offers cattlemen help in making performance tests of beef cattle. Instead of the 503-day test as carried on at the Station, the extension testing program covers a period of about 150 days, from weaning to one year of age. This seems adequate. The fastest gaining Station bull at two years of age was also the fastest gainer as a yearling. Also, the slowest gaining two-year-old bull was the slowest gainer at one year of age.

No Bull Sale This Year

The Station will not hold a bull sale this year. The sale scheduled for April 10 has been canceled.

HAC:rc
3/25/59

FOR RELEASE FRIDAY, APRIL 3, 1959

estival Coverage Packet

lant Pathologist Gives Lawn Disease Report at Festival

URBANA--Nearly 100 different grass diseases cause more damage o American lawns than most people realize, M. P. Britton, University f Illinois extension plant pathologist, told a visiting Farm and Home estival audience here today.

About a dozen lawn diseases are commonly found in Illinois. he weather, kind ofgrass that is used and cultural practices that are ollowed usually determine how serious grass diseases are within a iven year, Britton said. Diseases are most likely to damage improperly stablished lawns that are poorly maintained.

Britton listed these pointers to help control lawn diseases:

1. Be sure a new lawn has adequate surface and subsurface rainage.

2. Follow a recommended fertility program. Do not use large mounts of high-nitrogen fertilizers in hot weather.

3. Mow the lawn regularly at the proper height. Bluegrass nd fescues should not be mowed shorter than two inches. Bentgrass nd zoysia can be cut to 3/4 inch. Removing the clippings will help o control some lawn diseases.

4. Soak the soil thoroughly when watering. Be sure to water arly enough in the day to allow the grass leaves to dry before evening. oak the soil deep enough to make it unnecessary to water very often to aintain growth.

5. Prune bordering trees and shrubs to let light and air each the lawn.

Britton advised using a recommended fungicide to control the ost troublesome lawn diseases. Mercury fungicides cause less in- ury if they are sprayed on in the early evening than at other times.

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BJ:cm
/27/59

farm Radio News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE FRIDAY, APRIL 3, 1959

'estival Coverage Packet

6 Percent Corn Less Palatable for Heifers

URBANA--Heifers fed corn with 36 percent moisture in experi-ental work at the University of Illinois ate two pounds less corn a lay than heifers fed drier corn.

The end result was that the heifers eating wet corn gained .51 pounds a day. This gain compares with 1.89 pounds a day for eifers fed 14.5 percent corn, 1.9 pounds a day for heifers fed 24 per-ent corn, and 1.91 pounds a day for heifers fed 29 percent corn.

These figures were given today to a Farm and Home Festival udience by G. E. Mitchell, assistant professor of animal science at he UI College of Agriculture.

A considerable amount of heating showed up in the 36-percent-oisture corn, Mitchell reported. This reduced the amount eaten by he heifers and caused the slower and less efficient gains.

These results indicate that high-moisture corn for beef cattle hould be harvested at 25 to 30 percent moisture. Type of harvesting quipment being used, availability of suitable storage and ease of andling ensiled corn apparently will have more to do with the decision hether to put up high-moisture corn for beef cattle than will changes n feeding value.

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RAJ:cm
3/27/59

FOR RELEASE FRIDAY, APRIL 3, 1959

estival Coverage Packet

ind Engineering Problems With High-Moisture Corn

URBANA--Increasing farmer interest in harvesting, storing nd feeding high-moisture corn has given agricultural engineers some ew problems to solve.

When corn was harvested at 38 percent moisture in experiments ast fall, a self-propelled combine with picker head had trouble getting he kernels off the cob, E. L. Hansen told a Farm and Home Festival udience here today. The heavy silks of the wet corn also filled the ieves.

Hansen, agricultural engineer at the Illinois Agricultural xperiment Station, also reported that the combine had to be operated ne gear lower than usual when the corn was above 35 percent moisture.

Still the advantages of harvesting early partly overcome these lisadvantages. Early harvesting pays off in more bushels of corn har- ested. Field loss was least when the corn was harvested at 30 percent oisture.

More research may show that field-shelling high-moisture corn ffers the most advantages, Hansen said. That method combines early nd fast harvesting with a minimum of operations and equipment for stor- ng and low-cost and rodent-free storage in either air-tight or conven- ional silos.

Conventional silos used for high-moisture shelled corn stor- ge need to be reinforced to hold the extra pressures. The old silos

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need solid enough footings to hold the extra weight of corn. And distributors are recommended to keep the corn from piling on one side during filling--otherwise the silo may collapse.

Shelled corn stored in an air-tight silo or in a sealed conventional silo needs to go in at more than 23 percent moisture, the agricultural engineer told the Festival audience. If the corn is drier than that, water should be added at the blower during silo-filling. In the University tests, corn at 25 and 30 percent moisture showed less tendency to spoil than corn at 35 percent.

Other problems come when the feeder tries to get wet corn out of the silo and into the feed bunks. It is simply easier to move dry corn than wet corn, Hansen pointed out.

Augers, for instance, will not handle so much wet corn as dry corn, and they need more power to move the same amount of corn. And when supplement is metered into wet corn, the mixture is hard to move with an auger. This means finding other ways to work wet corn into an automatic feeding system.

Research engineers have also thought that farmers might want to dry part of the wet corn coming from the silo for dry feed, for market or to check spoilage on large-diameter silos.

RAJ:cm
3/27/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Crossbreeding Improves Dairy Cow Production

URBANA--Hybrid vigor apparently can improve production records of dairy cows.

That's what 10 years of crossbreeding research has shown at the University of Illinois, according to R. W. Touchberry, associate professor of dairy genetics at the UI Agricultural Experiment Station.

Touchberry, reporting at a Farm and Home Festival session here today, told the guests that records on 42 crossbred cows showed 14.5 percent more fat and 4.5 percent more milk than the records of 38 similar purebred cows on a mature equivalent basis.

On the basis of 1,000 pounds of live weight, the crossbred cows averaged 13.5 percent more fat and 7.3 percent more milk than their purebred half-sisters.

Crossbreds also performed better than purebreds in livability and rate of gain, Touchberry reported. Of 161 purebred calves born under the experimental work, 30 died of natural causes before they were two years old. Out of 178 crossbred calves in the same experimental program, 14 died, or less than half as many as the purebred calves.

Calves in the crossbreeding program gained faster for the first three years of their lives than their purebred half-sisters. After that their rate slowed to less than that of the purebreds, so by the time the cows were all five years old the weight difference had practically disappeared.

Crossbreeding probably is not for the top 10-20 percent of the purebred dairy cattle breeders, Touchberry pointed out, since the industry depends on them to furnish the high quality germ plasm needed for the program. But crossbreeding may be definitely in the picture for commercial producers.

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RAJ:cm
3/31/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

New High-Oil Corn by Next Year, Festival Audience Told

URBANA--Sixty years of research will make it possible for Illinois farmers to plant new corn hybrids with 30 percent more oil and 10 percent more protein in 1960.

Speaking before a Farm and Home Festival audience here today, R. W. Jugenheimer, University of Illinois corn breeder, reported that the new hybrids compare favorably with standard hybrids in yields, standability and other traits. But the extra oil and protein in the grain will make them more valuable for feed and industrial uses.

Jugenheimer reported that in feeding tests with lambs the special high-oil corn produced faster gains on 6 to 7 percent less feed. These new hybrids also contain higher quality germ protein than common hybrids. Larger amounts of this nutritionally balanced protein may mean that less expensive protein supplement will be needed to balance future livestock rations.

Corn oil also has many valuable food uses. It can be used in bakery products, cooking oil, margarine, mayonnaise, salad dressing, pharmaceuticals, shortening and soups. It has also been used for ammunition, chemicals, paint, varnish, rubber substitutes, rust preventives, soap, soluble oil and textiles.

One of the proteins of corn, zein, has been used to produce "Vicara," a fiber used in blends with wool.

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High-oil and high-protein corn development began at the University nearly 60 years ago, when agronomists planted open-pollinated strains and continued to select corn with higher oil and protein. These strains produced very low yields. About 10 years ago Jugenheimer began a breeding program to incorporate the high-oil and high-protein features into standard inbred lines. Since most of the oil is in the germ, ears with kernels having large germs were selected each year. Protein content was increased by keeping only ears with hard, flinty kernels.

From several years of work, two hybrids, Illinois 6021 and Illinois 6052, were selected for seed increase. Commercial seedsmen are producing the seed this year that farmers will be able to plant in 1960.

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HDG:cm
3/27/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Dwarf Hybrid Yields Still Lag Behind Normal Corn

URBANA--Dwarf corn tested by University of Illinois agronomists in 1958 still yielded 12 to 15 percent below normal hybrids, corn breeder Earl Leng told a Farm and Home Festival audience here today. But the dwarf hybrids showed superior standing ability in some locations where normal corn fell over badly.

Several seed companies have developed dwarf hybrids. The Eastern States Farmers Exchange is distributing considerable quantities of its dwarf types. The Illinois Experiment Station and Illinois Seed Producers Association cooperated in producing about 40 acres of double-cross seed of four dwarf hybrids in 1958. One dwarf line, R909, and limited amounts of Illidwarf 513 are being released for foundation seed production in 1959.

Other tests by Illinois agronomists show that the highest yields from dwarf corn came from planting 20,000 plants on acre in rows 30 inches wide. The dwarf corn seems to stand planting rates of 20,000 to 24,000 an acre with few barren stalks.

George Pickard, University agricultural engineer, has conducted harvesting tests on dwarf corn for two years. He reported that corn pickers and corn attachments on combines may need to be modified to handle very low ears on dwarf corn. Many ears were caught and shelled between the snapping rolls. He suggested that corn breeders should develop a plant with slightly higher ears.

Pickard also reported that ear losses are considerably less with the dwarf than with the tall hybrids. The cut-off type of harvesting equipment works very effectively with dwarf corn.

Using regular grain combines reduced shelled corn losses but increased ear losses excessively. The engineers plan tests with an extended cutter bar and long pick-up guards this fall.

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HDG:cm
3/27/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Cooperate in Soybean Disease Control Efforts

URBANA--Developing disease-resistant soybean varieties is the most economical approach to the soybean disease problem for the Illinois grower, USDA plant pathologist D. W. Chamberlain told a 1959 Farm and Home Festival audience here today.

Soybeans simply do not return enough profit per acre to make expensive field treatments practical. A continuing search is therefore under way to find sources of resistance to major soybean diseases.

The U. S. Regional Soybean Laboratory at Urbana has sponsored a disease-control program since 1943, Chamberlain related. This program parcels out the work of finding sources of resistance and then transferring the resistance to field varieties among several state agricultural experiment stations. The Regional Laboratory coordinates the efforts of the state experiment stations.

This cooperative arrangement has already found sources of resistance to more than half a dozen major soybean diseases, Chamberlain said. The Illinois Agricultural Experiment Station has found sources of resistance to soybean bacterial blight. Other states have located sources of resistance to other potentially dangerous diseases.

Once resistance to some soybean disease is found, it may take as long as 10 years to combine the resistance with a useful field variety. This long-term effort is now well under way at the cooperating experiment stations.

Chamberlain cautioned that, although soybean diseases are not yet extremely destructive in Illinois, they are potentially dangerous. If the diseases do begin to cut into future Illinois soybean production, the resistant varieties should be ready for field use in time to prevent any large losses.

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PBJ:cm
3/27/59

FOR RELEASE FRIDAY, APRIL 3, 1959

stival Coverage Packet

stival Visitors Hear Corn Disease Report

URBANA--Illinois farmers could produce upwards of 45 million re bushels of corn every year if all corn diseases could be controlled, L. Hooker, University of Illinois plant pathologist, declared here day.

Speaking to a visiting Farm and Home Festival audience, oker added that corn diseases attack all parts of the corn plant. e diseases lower yields and raise production costs per bushel.

Hooker explained that a plant disease is basically the growth a parasite on a useful plant--in this case corn. The growth of the rasite harms the host plant.

Except for the seedling diseases, which chemical seed treatnts can control, developing disease-resistant hybrids is the best way control the major Illinois corn diseases, Hooker said. Resistant rains are developed by breeding to change the genetic makeup of the rn plants.

Sources of breeding stock containing resistance to certain seases are known to exist in native and foreign corn varieties. ner sources are expected to turn up in later investigations of still ner corn varieties.

Once the sources are found, disease resistance can be combined h modern high-yielding hybrids now in common use. Farmers can ext future hybrids to have a higher degree of "built-in" disease restance at no cost in yield or other desirable features, Hooker ported. But more basic research is needed to make inherited disease sistance a more effective and lasting control measure.

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7/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Festival Features Systemic Insecticides to Control Hessian Fly

URBANA--Thimet and Di-Syston, two new systemic insecticides, may someday help farmers battle the Hessian fly, a pest causing thousands of dollars of wheat damage every year.

A vivid exhibit demonstrating the effectiveness of these two insecticides was displayed during the University of Illinois Farm and Home Festival. The exhibit featured two plots of wheat. One plot had been treated with Thimet to control Hessian fly. This plot was much more vigorous and healthy than the other untreated plot.

However, both these insecticides are still undergoing experimental study. And farmers may not be able to obtain them for another one or two years, reports John H. Bigger, research entomologist with the Illinois Natural History Survey in Urbana.

As systemic insecticides, Thimet and Di-Syston are applied to either the seed before planting, or in the planting row as a granular form. When the seed sprouts, the insecticide circulates throughout the sap system of the plant. Then when flies feed on the plant, they got a mouthful of poison.

Bigger says that so far tests show that Thimet and Di-Syston have only one real advantage; and that's for farmers who plant wheat before the recommended planting date. (Wheat should be planted after a certain date in the fall when the Hessian fly no longer lays eggs.)

These farmers would buy seed wheat treated with Thimet or Di-Syston which will control Hessian fly. Tests also show that in fields with heavy fly infestations, wheat treated with either Thimet or Di-Syston will outyield untreated wheat in the same field.

Bigger adds though, that Thimet often decreases seed germination. And it often causes plants to be deformed.

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PAC:cm
3/30/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Spring and Summer Care of Roses

by F. F. Weinard
University of Illinois Department of Horticulture

URBANA--Roses are probably the most popular of all garden flowers. Different varieties make the rose adaptable to many locations, and if they are cared for, they'll produce many beautiful flowers throughout the growing season.

Although roses do not require meticulous care, they do require more attention than the average garden flower. Here's a step-by-step list of what roses require during the spring and summer.

Removing soil mounds: If rose plants were mounded last fall for winter protection, remove those mounds now. Do it by hand or use a hose to wash down the soil. Be extremely careful to avoid breaking new shoots under the soil.

Pruning: Pruning roses, for some reason, is believed to be hard to do. Actually it's a rather simple procedure. Remember to use sharp tools to give clean cuts, but do not injure the bark.

The main purpose of pruning is to improve the plant's appearance, to remove dead wood, and to control the quantity and quality of flowers produced. If roses are not pruned they soon grow into a bramble patch and produce small, inferior flowers.

When pruning, first remove all dead and broken canes. Then cut off portions of canes damaged by winter injury. (A brown, dead appearance indicates injured canes.) If no buds are left on the live wood, remove the entire cane. Next cut out all weak growth and any branches which grow toward the center of the plant. And if two branches cross one another, remove the weaker.

Usually this pruning is all that's necessary. But if canes and branches are still too long, cut them so they are about 8 to 12 inches in length.

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As for climbing roses, do not prune them until after they bloom except for removing dead and broken canes. Otherwise blooms will be cut off.

Remember that all blooms are produced on new wood grown each year. So do not think that heavy pruning will prevent plants from producing flowers. Pruning actually stimulates new wood growth which in turn stimulates flower production.

Fertilizing: Roses are more often overfed than underfed. This causes too much growth and fewer flowers. It will also cause plants to continue growing until early winter, making them susceptible to winter injury.

A soil sample is the best way to find out how much fertilizer a rose bed needs. But here's a good rule-of-thumb to follow: apply 3 pounds of a complete fertilizer, such as 10-10-10, for every 100 square feet. Or apply one heaping tablespoon for each plant. Work the fertilizer into the soil. Then water.

When a complete fertilizer is used, apply it several times during the growing season. Make the first application when new spring growth is well established and after frost danger is past. Then space applications according to when the plant shows deficiency symptons. Do not apply fertilizer after August 15.

In general, roses prefer a slightly acid soil. So lime is usually not necessary.

Spraying: Several diseases and insects attack roses. The two most common diseases are black spot and mildew. The most common insects are aphids, rose slugs, spider mites and thrips.

Most rose dusts and sprays are formulated to contain fungicides and insecticides. So a commercial spray or dust will give adequate control of both diseases and insects.

Here's a common question that amateur gardeners often ask: "Which is better, sprays or dusts?" As a general rule, dusts give better control than sprays if they are applied while the leaves are damp. (The moisture helps the dust "stick" to the leaves.)

Since rose leaves are waxy and slippery, sprays will not stick so well to the leaf surface.

Apply a dust or spray once a week and after each rain.

For more specific information on rose care, contact your county farm adviser. Or write to the Department of Horticulture, 124 Mumford Hall, Urbana.

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PAC:cm
3/31/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Plant Pathologist Gives Lawn Disease Report at Festival

URBANA--Nearly 100 different grass diseases cause more damage to American lawns than most people realize, M. P. Britton, University of Illinois extension plant pathologist, told a visiting Farm and Home Festival audience here today.

About a dozen lawn diseases are commonly found in Illinois. The weather, kind of grass that is used and cultural practices that are followed usually determine how serious grass diseases are within a given year, Britton said. Diseases are most likely to damage improperly established lawns that are poorly maintained.

Britton listed these pointers to help control lawn diseases:

1. Be sure a new lawn has adequate surface and subsurface drainage.

2. Follow a recommended fertility program. Do not use large amounts of high-nitrogen fertilizers in hot weather.

3. Mow the lawn regularly at the proper height. Bluegrass and fescues should not be mowed shorter than two inches. Bentgrass and zoysia can be cut to 3/4 inch. Removing the clippings will help to control some lawn diseases.

4. Soak the soil thoroughly when watering. Be sure to water early enough in the day to allow the grass leaves to dry before evening. Soak the soil deep enough to make it unnecessary to water very often to maintain growth.

5. Prune bordering trees and shrubs to let light and air reach the lawn.

Britton advised using a recommended fungicide to control the most troublesome lawn diseases. Mercury fungicides cause less injury if they are sprayed on in the early evening than at other times.

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PBJ:cm
3/27/59

for dailies

Farm News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE SATURDAY, APRIL 4, 1959

Festival Coverage Packet

Festival Visitors Hear Swine Ration Pelleting Results

URBANA--Pelleting a corn—soybean oil meal ration for growing or finishing hogs does not increase the ration's feeding value, University of Illinois swine researcher A. H. Jensen said here today.

Speaking to a visiting Farm and Home Festival audience, Jensen reported that pigs up to about 40 pounds may use pelleted corn efficiently. But so far all Illinois feeding trials indicate that this advantage does not exist for heavier hogs.

When wheat, barley or sorghum grain is used in place of corn in swine rations, Jensen said, pelleting has shown some advantage. Hogs take less feed to put on a pound of gain when such a ration is pelleted.

Rate of gain in Illinois trials was higher when barley or sorghum grain rations were fed in pelleted form. Wheat rations showed about the same rate of gain when fed in either meal or pelleted form.

Researchers have found out that pelleting makes swine rations much easier to handle, Jensen added, because pelleting gets rid of the dust from powdery wheat and sorghum grain rations in meal form.

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PBJ:cm
3/27/59

FOR RELEASE SATURDAY, APRIL 4, 1959

'estival Coverage Packet

Iust Reduce Cost of Feed-Pelleting Machines

URBANA--Pelleting hay and concentrates may increase the feed-.ng value of livestock rations and allow even more of the feed-handling :hores to be mechanized.

But first someone will have to design and produce a pellet-.ng or wafering machine that farmers can afford, G. E. Pickard, Univer-:ity of Illinois agricultural engineer, told a Farm and Home Festival ıudience here today.

All the large farm machinery companies are working on pellet-.ng or wafering machines, Pickard reported. Most of them are aiming :or a capacity of about five tons an hour and a price of $5,000 to :10,000. A few are well along toward pilot-run production.

Pickard predicted that field machines would probably make ⁄afers instead of small, hard pellets. Wafers are larger and less lense than pellets, he explained. A wafering machine is expected to ıeed much less power than present pelleting machines.

It is also possible to wafer long or chopped hay at field ıoisture levels. Pelleting requires drying and grinding the hay finely)efore the pelleting machine will work.

A few Illinois farmers are already using pelleted feeds, 'ickard said. A stationary pelleting machine is already on the market,)ut its cost is too high for all but the largest feeders.

Field wafering machines could probably be used as stationary ınits to wafer grain-hay mixtures, Pickard added.

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FOR RELEASE SATURDAY, APRIL 4, 1959

Festival Coverage Packet

Festival Speaker Tells Latest in Dairy Feeding Automation

URBANA--Trials have shown that it may work to feed dairy cows complete mixed rations free-choice, University of Illinois Agricultural Engineer Gene Shove said here today.

Speaking to a visiting Farm and Home Festival audience, Shove said that with modern developments in feed handling automation it may be possible to design an automatic system to supply complete free-choice dairy rations.

Such a system would grind and mix roughages and concentrates and then deliver the complete ration to free-choice feed bunks. Shove said dairymen may have to divide large herds into several groups for feeding according to production levels.

University of Illinois agricultural engineers and dairy science researchers plan to set up a study to determine whether or not it is feasible to supply different dairy rations automatically, Shove said.

The researchers will also study the accuracy and dependability of a system for handling both roughage and concentrates. A careful evaluation of the dairy cow's response to free-choice feeding will complete the study.

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PBJ:cm
3/31/59

FOR RELEASE SATURDAY, APRIL 4, 1959

estival Coverage Packet

armers Wonder How to Handle Liquid Manure

URBANA--As more Illinois farmers switch to raising hogs in confinement, they show more interest in liquid manure-handling systems.

Manure disposal is automatic in a pasture finishing system. ut it has been a problem in drylot systems, according to D. G. Jedele, xtension agricultural engineer at the University of Illinois College f Agriculture.

Jedele told a Farm and Home Festival audience here today hat the problems for swine differ from those in beef and dairy cattle perations, since little bedding is used. Underground storage tanks or hog manure disposal have the advantage of preventing contamination, dors and insect breeding.

Since a septic tank and field drainage disposal would involve a sizable investment, many swine growers are looking for ways to distribute liquid manure on their fields, Jedele said. Agricultural engineers now are looking for better ways to work liquid manure-handling systems into over-all confinement hog-feeding layouts.

First requirement is a concrete floor that slopes into a gutter for handling liquid manure. Floors can be hand-scraped and rinsed to use the minimum amount of water. Using water alone requires more water and higher pressures.

Underground storage tanks should be large enough for at least one week's supply, and preferably three weeks, Jedele pointed out. Either pumps or augers can be used to get the liquid manure out of the storage tank.

Many tank wagon spreaders are homemade, but more custom-built tank wagons are becoming available.

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RAJ:cm
3/27/59

FOR RELEASE SATURDAY, APRIL 4, 1959

Festival Coverage Packet

Estate Planning Can Reduce Inheritance Taxes

URBANA--Sound estate planning makes it possible to carry out arrangements that are most desirable to parents and children and at the same time save tax costs, a University of Illinois professor of farm law told a Farm and Home Festival audience here today.

N. G. P. Krausz cited examples in which a $100,000 estate could be assessed $10,800 or $1,200 for inheritance taxes, depending on how the estate was planned. On a $200,000 estate the taxes may be as high as $47,500 or, with good tax planning, as low as $14,200. Gifts made during the lifetime of the property owners can further reduce and in some cases completely eliminate these taxes.

Every farm estate presents a separate problem, Krausz pointed out. Value of the property, way in which title is held, whether both parents are living, number of children, amount of life insurance, nature of personal property and children's interest in farming all enter into the planning process.

Joint tenancy has advantages for estates under $100,000 Krausz pointed out. The survivor then has complete title instantly, and the property does not become part of the probated estate. But in estates over $100,000, joint tenancy has become a poor way to hold title.

Life estates and trusts offer other opportunities to cut inheritance taxes substantially. But putting all property into life estates or trusts usually isn't the complete solution either.

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Farm incorporation was mentioned as another way to hold large farm units together and maintain efficiency. Krausz listed limited liability, simple transfer of ownership, continuous operation and tax reductions as some possible advantages of a farm corporation. On the other hand, initial costs, franchise taxes, formal organization requirements and other taxes give this plan some disadvantages too.

In farm estate planning, Krausz urged each family to consult with such experienced persons as their life insurance underwriter, bank trust officer or attorney in order to set up a sound estate plan that meets the family's desires and provides all possible tax savings at the same time.

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3/27/59

FOR RELEASE SATURDAY, APRIL 4, 1959

Festival Coverage Packet

Farming Changes Require New Leasing Decisions

URBANA--New farming developments such as automatic feed handling, large livestock enterprises, new storage methods and specialized production create many problems that must be settled on tenant operated farms, according to F. J. Reiss, University of Illinois agricultural economist.

Speaking before a Farm and Home Festival audience here today, Reiss pointed out that many of these new trends call for large capital investments closely associated with the farm real estate and are usually contributed by the landlord. But in practice, landlord and tenant will usually work out a sharing of these costs.

Under a livestock share lease the landlord shares more directly in the benefits of the new improvements and a sharing of their cost is usually easier to work out.

With a crop share lease, Reiss suggested four ways for handling added improvement costs.

The landlord may pay for the added investment and the tenant provides offsetting costs such as combining, shelling, hauling or other contributions.

The tenant may pay for the improvements with a guarantee that he will be repaid if he leaves the farm before a certain number of years.

The landlord may make the investment and tenant pay an annual cash rent on the value not balanced off by other contributions.

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Or, the landlord makes the new investment and takes a slightly larger share of the crop as rent. This may be more than the usual 50, 40 or 33 percent.

Reiss emphasized that changes in rent shares are justified only if the proportions contributed by tenant and landlord are not the same as the division of farm income. Changing farm methods and techniques and unequal advances in farm costs are largely responsible for many of our current leasing problems.

In working out these problems, he urged landowners and tenants to first plan for an efficient operation. Under such a plan developed together, they will each contribute certain items. The landlord supplies the farm land and fixed improvements. The tenant furnishes labor and machinery. The amount that they contribute to these fixed costs will determine not only how they will share other costs, but also how they will divide the income from the farm. Such a leasing plan should be a sound one.

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farm Radio News

ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Develop Systems for Farm Materials Handling

URBANA--Use of power has revolutionized agriculture, particularly in crop production and materials handling.

But this power has to be put to its best use for most efficient production, says Frank Andrew, extension agricultural engineer at the University of Illinois College of Agriculture.

Speaking before a Farm and Home Festival crowd at Urbana today, Andrew pointed out the need to organize a system for using power to handle materials. He used the term system to mean arranging operations and equipment for continuous performance with a minimum of confusion.

Moving materials from field to storage, from storage to processing and from processing to use or direct sale needs to be carefully analyzed to fit each system to its particular farm, he said.

Most farm operations consist of moving materials. Earth, feed, manure, livestock or crops all must be moved to market or use. To make each farm business most efficient, these materials must be moved in the right amount and in the right direction with the least labor. This takes careful planning, the specialist advised.

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RAJ:cm
3/24/59

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Swine Growers Need to Specialize More

URBANA--Outlook for the swine industry is for highly efficient producers growing a high-quality hog through the best methods of breeding, feeding, management and marketing as found through research.

That's what S. W. Terrill, head of the swine division at the University of Illinois College of Agriculture, told a Farm and Home Festival audience at Urbana today.

Some of the problems of the swine industry have been overfat pork, inefficient management, diseases and unsanitary growing conditions, price fluctuations, and failure to adopt proved breeding, feeding, management and housing programs, Terrill said.

But research has helped to solve a part of these problems. And application of these research findings has helped to make possible large-scale confinement raising of pigs as one of the strongest future trends.

A confinement system is best suited to a large-scale specialized producer who practices multiple farrowing, Terrill pointed out, and it gives him a chance to capitalize on his managerial ability in raising hogs.

This system can make efficient use of capital and labor if the plant is operated as much as possible, consistent with necessary sanitation breaks. It encourages the use of labor-saving equipment to cut labor costs.

It can also provide greater comfort (environment control) for pigs and greater convenience and comfort for the operator. And it encourages more profitable alternative use for land; that is, the use of good crop land for high-profit crops or the use of forage crops for classes of livestock more likely to give the most return per acre.

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FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Large-Scale Livestock Program Requires Disease Prevention Plan

URBANA--Troublesome disease problems threaten all large-scale livestock enterprises, a University of Illinois veterinarian told a Farm and Home Festival audience today.

Dr. Alvin B. Hoerlein, professor of veterinary pathology and hygiene, pointed out that larger numbers of animals brought together from different places into more concentrated conditions can be expected to develop troublesome disease problems.

Although the exact diseases are difficult to predict, Hoerlein expects that most will be respiratory and intestinal diseases. Some diseases arenot so serious when they occur alone. But when two or more spread through the herd at one time, a serious problem may develop. We may even have some diseases not now recognized, he pointed out.

One solution to this problem lies in disease prevention. The operator who waits until disease treatment is needed to call in his veterinarian may expect disaster, Hoerlein asserted. The mastitis problem in dairy cows was cited as an example. The veterinarian pointed out that antibiotics are not sufficient by themselves to control that disease.

Man has continually made it harder to keep animals in good health. Traditionally, scientific research has found the means to control these problems. Today, veterinary medicial research workers are using the new tools of science to help plan ahead for tomorrow's problems.

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3/24/59

FOR RELEASE THURSDAY, APRIL 2, 1959

stival Coverage Packet

panding Livestock Output Most Likely on Family Farms

URBANA--When livestock production expands in the midwest in e next few years, it will take place on family-operated farms, Uni- rsity of Illinois agricultural economist A. G. Mueller predicted day.

Looking ahead 10 to 25 years, he admitted that the livestock terprise organization of the future is not too clear. New production chniques and market demands may bring about a highly specialized oducing unit.

Family-operated farms are capable of taking temporary market tbacks without going out of business. They also give the farmer an centive to do the many jobs necessary to make him successful, he inted out.

Mueller expects family farm units to become more specialized. t in the next few years he does not expect a rapid shift to the single- terprise, highly specialized operation.

The single large-scale enterprise must face competition from e smaller two- or three-enterprise farm unit. Mueller pointed out at, with current feed prices, the smaller farm units can produce hogs a direct cost of $12 to $12.50 a hundred pounds. If some other part the business can temporarily carry the overhead costs of $2 to $3 a ndred pounds, this farmer can stay in business. The specialized oper- tion may experience severe financial difficulties at these low prices.

Mueller also urged farmers to gear their livestock enterprise get the most gains with the lowest possible feed costs, since feed the major cost item. When management efficiency is reasonably good, suggested that individual operators might benefit from some expan- ion. This would lower their overhead costs per unit of production and ncrease income for family living.

Mueller spoke before one of the speaking sessions at the Uni- ersity's Farm and Home Festival taking place on the campus through aturday, April 4.

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FOR RELEASE THURSDAY, APRIL 2, 1959

stival Coverage Packet

ok for Trace-Element Needs of Animals

URBANA--Agricultural scientists are looking into the needs of imals for trace elements, such as iron and copper.

But the search is complicated by the fact that some of these ements poison the animals if too much gets into their feed, according R. M. Forbes, animal nutrition researcher at the University of Illi- is Agricultural Experiment Station.

Forbes, speaking to a Farm and Home Festival audience here day, said that scientists will know more about animal needs for rious trace elements when they know exactly how each element helps imals to grow and produce meat, milk and eggs.

Several trace elements are known to affect animal growth and alth. They include iron, copper, cobalt, manganese, iodine, zinc, lenium and arsenic, Forbes said. Indiscriminate use of these elements all rations may be definitely harmful to the animals that eat them.

For instance, selenium is toxic to most animals. But recent periments show that sheep may need extremely small amounts of it to event "stiff lamb disease." They may not require more than one part 10 million. Five parts per million are definitely toxic unless a all amount of arsenic, another poisonous element, is added.

Confined nursing pigs definitely need iron, and all animals n make good use of iodized salt. But animal needs for cobalt, nganese and zinc are much harder to determine.

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/27/59

FOR IMMEDIATE RELEASE

rain Dealers Plan Space-Use Discussion, April 21-22

URBANA--Grain dealers from throughout Illinois will gather n the University of Illinois campus on April 21-22 to discuss develop-ent of elevator space and its proper use, L. F. Stice, extension econo-ist in grain marketing, announced this week.

Topics scheduled for the 1 1/2-day session include grain torage needs by private firms and government, vertical versus flat torage, maintaining quality in flat storage, the grain bank and how t works, using basis changes to earn income and managing elevators or greater returns.

Speakers will include grain dealers, University staff members nd U. S. government personnel. W. G. Kammlade, associate director of he Illinois Extension Service, will discuss "Our Common Interests" uring the Tuesday noon luncheon. Stanley Andrews, director of the ational Project in Agricultural Communications, will address the uesday evening dinner session on "U. S. Agriculture and World Trade."

Conference sessions will be held in the new Law Building uditorium. Luncheon and dinner meetings will be in the Illini Union allroom. More complete information and reservation forms for the onference can be obtained from Conference Supervisor, 116C Illini Hall, hampaign, Illinois.

This conference is arranged and conducted by the University f Illinois Department of Agricultural Economics in cooperation with he Illinois Grain Dealers Association, the Farmers Grain Dealers ssociation and the Division of University Extension.

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/27/59

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Farm Families Show Interest in Junior Colleges

URBANA--Junior colleges could offer farm young people a chance to get college training at lower cost, a University of Illinois rural sociologist said today.

David E. Lindstrom reported to a Farm and Home Festival audience that surveys are being made in Fulton, Stark, Henry and Bureau counties to determine farmers' interest in junior colleges. In Fulton county, about 40 percent of a group surveyed indicated that they would take advantage of a junior college if it were available within easy driving distance. Another 34 percent were undecided. According to the study in Bureau county, easy driving distance would be within 30 miles.

M. R. Sumption, professor of education at the University, pointed out that any high school district with a population of 10,000 or more is eligible for a junior college. Or a group of districts can go together to establish one. The Superintendent of Public Instruction approves its establishment after surveys show the need, expected enrollment and financial resources.

The state pays $200 a year for each full-time student. The rest comes from local taxes. The local district can levy taxes up to 25 cents per $100 valuation of real estate for operation and buildings. Few districts would have to levy that high a rate.

If present building facilities were used, Lindstrom estimated that taxes to establish a junior college would run about 10 cents an acre land valued at $500 an acre. Students living in the district who attended college would have books and transportation as their only direct costs. Students outside the district would have to pay tuition, which could run as high as $500 a year.

Courses offered by junior colleges will enable a student to go to another college or university after two years to get a degree. Or they can prepare students to hold positions in business or industry after two years of junior college study.

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3/27/59

for dailies

Farm News

ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Study Anhydrous Ammonia Jet Injection Systems

URBANA--"Jet" may mean more in the future to farmers than just a type of power for airplanes.

That is, it may if research by agricultural engineers at the University of Illinois proves that a jet stream will put anhydrous ammonia fertilizer where you want it in the soil at half its present cost of application.

Dean Hopkins and George E. Pickard are the agricultural engineers working on the problems of anhydrous ammonia injection. They are designing various jet nozzles and pressure tanks to work on present tractors and farm equipment.

However, Hopkins and Pickard emphasize that the research experiments are set up over the next two or three years. It will probably be some time before they find the key to practical use of this new idea for applying fertilizer.

Anhydrous ammonia is a highly effective source of nitrogen fertilizer, the agricultural engineers point out. And it is plentiful. Main reason more farmers do not use it is its relatively high cost of application.

Research results so far show that a jet injection system should be workable. This injection idea is being studied because anhydrous ammonia evaporates so fast that it cannot be put on the soil with a gravity-flow system.

Problems of jet application include pressures needed for the system, non-corrosive materials for nozzles and pumps, nozzle design and jet size and behavior of the material in different soil types.

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RAJ:cm
3/26/59

FOR IMMEDIATE RELEASE

nnounce Results of 1958 Strawberry Variety Trials

URBANA--For the first time in 1958, the University of Illi-
ois performance-tested 10 popular strawberry varieties.

The experimental trials determined each variety's production
bility, flavor, size, appearance, firmness and resistance to disease.
lowever, these trial results represent only one harvest season. So
. C. Zych, horticultural researcher, points out that they will un-
loubtedly change as the varieties are further tested in 1959 and 1960.

But the results so far can serve as a guide to home gardeners
nd commercial growers in selecting varieties. The trials were con-
lucted both on the Urbana campus and at the Illinois Horticultural Ex-
periment Station in Carbondale. Listed below are the 10 varieties,
with comments on their performance.

Tennessee Beauty: This variety topped all others in pro-
duction at Carbondale. But it ranked fifth in Urbana. The trials also
showed a tendency for these berries to cap and decrease rapidly in
size.

Tennessee Shipper: Following the same trend as Tennessee
Beauty, this variety ranked higher at Carbondale than at Urbana. This
result indicates that both of these varieties are better adapted to
southern Illinois than to other sections. Tennessee Shipper was
slightly below average in yield and the poorest flavored of all
varieties.

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Surecrop: Ranking second at Carbondale and third at Urbana, this variety is also resistant to three races of the red stele fungus. This characteristic, combined with its production performance, makes Surecrop a good variety to try in areas where red stele is a problem.

Pocahontas: This variety outperformed all others at Urbana and ranked third at Carbondale. Its berry size was above average, and its fruit is considered firm enough for shipping.

Dixieland: Performing well in both locations, Dixieland appears to be a good replacement for Blakemore, which produced poorly under the tests.

Vermilion: Ranking second in production at Urbana, Vermilion fell to sixth place at Carbondale. It is resistant to red stele and should be considered for the northern part of Illinois, particularly where red stele is a problem.

Earlidawn: This variety seems to be a shy plant-maker, requiring a fertile soil to establish a full matted row. It merits attention, however, for its earliness and from the appearance of its rows in trial plots last fall, its productivity should increase in 1959.

Redglow: A red stele-resistant variety, Redglow produces an attractive, highly flavored berry. However, it did not produce well this past season, probably because of its extreme susceptibility to leaf spot and leaf scorch.

Albritton: Developed for the Coastal Plains of the Carolinas, Albritton's performance seems to limit it to that area. Although its fruit rated high and was attractive and uniform, its low yield makes it undesirable as an Illinois commercial variety.

Blakemore: This variety ranked last in size at both locations, being close to the "jam berry" size at the fifth picking. In yield, it ranked ninth at Carbondale and seventh at Urbana. In summary, Blakemore turned out to be one of the poorest varieties tested.

Growers who desire more specific information on the results of these trials may write directly to the Department of Horticulture, 124 Mumford Hall, Urbana.

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PAC:cm
3/24/59

FOR IMMEDIATE RELEASE

Plan Heavy Radio-TV Coverage of UI Festival

URBANA--Several Illinois radio and television stations will originate live programs and special reports from the 1959 Farm and Home Festival at the University of Illinois in Urbana on April 2, 3 and 4.

Three radio programs are slated for live broadcast. Station WLS, Chicago, with Farm Director Bill Mason, will broadcast the "Dinner Bell Hour" at 12:30 p.m. on Friday from the pork-chop and fish barbecue in the Stock Pavilion on the Urbana campus.

And during the entire three days of the Festival University Station WILL will air its "Illinois Farm Hour"--with Jon Greeneisen--and "For You At Home"--with Jessie Heathman--from the agricultural engineering building. The farm show starts at 12:15 p.m., and the home program at 9:00 a.m.

Other farm radio personalities scheduled to record special reports include Norm Kraeft, farm director of WGN, Chicago, and Marty Roberts, farm director of WDZ, Decatur. Kraeft's interviews will be aired over the noontime WGN program, "Country Fair."

Television Station WCIA, Champaign, plans several filmed features for its noon "Farm Report" with Bob Nemcik and will also feature an exhibit in the agricultural engineering building. Scheduled for personal appearances are these WCIA on-the-air personalities: Don McKellar, Sandra, John Ketterer, Mr. Roberts, Gene Robinson, DiAnne, Don McMullin, Tom Jones, Dick Wright, Sheriff Sid, John Coleman and Tom Schoendienst.

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RLN:cm
3/26/59

FOR IMMEDIATE RELEASE

Don't Guess When Poultry Disease Strikes

URBANA--Guessing about disease in the chicken flock at this time of year can mean severe losses, warns Dr. L. E. Hanson of the University of Illinois College of Veterinary Medicine.

Five diseases that may strike poultry flocks in Illinois are easily mistaken for one another. These diseases are infectious bronchitis, chronic respiratory disease, Newcastle disease, chronic fowl cholera and fowl pox.

If disease strikes, take two or three live, sick birds to a veterinarian or a diagnostic laboratory, Dr. Hanson advises. A correct diagnosis is important in controlling the disease and preventing it in the future.

To start sick chickens on the road to recovery, provide good ventilation to assure dry quarters, and keep plenty of good feed and clean water available. Poultrymen often find that a wet mash encourages chickens to eat.

Poultry growers may control Newcastle disease, fowl pox and infectious bronchitis in their future flocks by vaccinating them during the range season. Chronic respiratory disease and fowl cholera can best be controlled by shipping all hens to market at the end of the laying season.

After marketing the adult flock, clean the poultry house thoroughly before moving poults into it next fall. Scrub the house with boiling lye water, and spray it with a good disinfectant. Be sure to clean and disinfect the feeders and waterers, too, because many diseases are spread through contaminated feed and water.

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JER:cm
3/26/59

FOR IMMEDIATE RELEASE

Tells How to Be Safe From Lightning

URBANA--To avoid being struck by lightning is the best reason for knowing enough to come in out of the rain, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Each year lightning takes the lives of about 400 people and injures more than 1,000 others, most of whom are farm residents. About 5 percent of the nation's fires are caused by lightning, with a loss of over $20 million worth of farm property.

Lightning tends to strike the highest point in the vicinity. It may be a barn, a tree or a man working in the field. During electrical storms, seek protection in a building or a low spot in the field away from wire fences, trees, livestock and machinery. In the house, keep away from screen doors, fireplaces, open windows and metal objects.

The Illinois Rural Safety Council recommends the following suggestions for lightning protection:

1. Install lightning rods properly and keep them grounded and in good repair.

2. Ground hay carrier tracks, metal stanchions, water pipes and wiring systems.

3. Never ground lightning rods or other equipment to the wiring system.

4. Place ground for wiring and water systems at least 15 feet from the lightning rod grounds.

5. Protect livestock by grounding wire fences every 100 yards, using metal posts driven at least three feet into the earth.

Also, make periodic check-ups to see that all precautions are in effect.

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OLH:cm
3/26/59

FOR IMMEDIATE RELEASE

(This grain market analysis for the week ending March 27, 1959, is prepared as a special service by the University of Illinois grain marketing staff.)

New-Crop Soybeans Too High; Old Beans Near Peak

URBANA--A University of Illinois agricultural economist believes that prices on 1959 soybeans for fall delivery are too high. T. A. Hieronymus points out that even if farmers cut their plantings as the March 1 intentions report shows, and if yields are average, production plus 1958 carryover will supply next year's needs adequately. The new-crop futures price appears to be based on adverse weather, he believes.

The current bid of $1.92 to farmers for new beans is about equal to the loan rate in central Illinois. It is 23 cents below the current price for old beans, while the loan rate is 24 cents lower. But old-crop beans have acquired a full storage cost by now, while the new beans have none.

A year ago bids for new-crop beans were 11 cents below loan, and last fall they dropped to 21 cents below.

Current price of old soybeans is up to the loan but still short of moisture premiums. But Hieronymus believes that soybean prices have advanced about as far as they will go. Farmers hold substantial amounts of beans that are not under loan, and these will probably be sold before June. If CCC follows its usual selling policy, prices in June will not be more than 1 1/2 cents above current prices.

Corn prices are not expected to make much further advance. Recently prices have moved up to within 1 cent of $1.10 a bushel. At this price, corn can be redeemed from the low loan.

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HDG:cm
3/27/59

FOR IMMEDIATE RELEASE

s grain market analysis for the week ending March 21, 1959, is prepared as a
tal service by the University of Illinois grain-marketing staff.)

Crop Soybeans Too High; Old Beans Bear Peak

URBANA--A University of Illinois agricultural economist believes that
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believes.

The current bid of $1.92 to farmers for new beans is about equal to the
rate in central Illinois. It is 22 cents below the current price for old beans,
the loan rate is 8¢ cents lower. But old-crop beans have required a full stor-
cost by now, while the new beans have none.

A year ago bids for new-crop beans were 11 cents below loan, and last fall
dropped to 22 cents below.

Current price of old soybeans is up to the loan but still short of normal
premiums. But Hieronymus believes that soybean prices have advanced about as
as they will go. Farmers hold substantial amounts of beans that are not under
, and these will probably be sold before June. If CCC follows its usual
ing policy, prices in June will not be more than 1 1/2 cents above current
es.

Corn prices are not expected to make much further advance. Recently prices
moved up to within 1 cent of $1.10 a bushel. At this price, corn can be re-
ed from the low loan.

cm
3/19

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

April - May 1959

April 2-4 FARM AND HOME FESTIVAL. University of Illinois, Urbana.

April 4 Agriculture Student Guest Day. University of Illinois, Urbana. Registration begins at 9:00 a.m. in Gregory Hall.

April 4 Home Economics Hospitality Day. University of Illinois, Urbana. Registration begins at 8:30 a.m. in Lincoln Hall.

April 4 Rural Youth Day, University of Illinois, Urbana. Rural Youth meeting to begin at 4:00 p.m. in Illini Union.

April 6-7 Sheep Shearing School. University of Illinois, Urbana. (Advance registration required--contact G. R. Carlisle, 326 Mumford Hall, Urbana.)

April 8 Northern Illinois Horticultural Society Meeting. (Open to the public) Clark Hotel, Princeton.

April 9 Feeder Pig Sale. Benton.

April 11 Vermilion County Area Pruning Meeting. Danville, 9:30 a.m.

April 15-16 Illinois Bankers Agricultural Conference. University of Illinois, Urbana. Law Building Auditorium. Registration begins at 9:00 a.m., April 15.

April 18 Land o' Lincoln Livestock Judging Contest and School. State Fairgrounds, Springfield.

April 21-22 Grain Dealers' Management Conference. University of Illinois. Law Building Auditorium.

April 24 or 25 Statewide County Competitive Examination for Tuition Scholarships to the University of Illinois. (Check with County Superintendent, for date and location in your county.)

April 29 Jackson County Area Feeder Pig Sale. Murphysboro.

April 30 Dixon Springs Feeder Pig Sale. Robbs.

May 3 National Rural Life and 4-H Sunday.

May 11 Twilight Orchard Meeting, Jersey and Calhoun County Area. To be held at Nugent-Schpanski Orchards, Grafton, 3:00 p.m. Supper will be served.

May 11-15 Leisurecraft and Counseling Conference. 4-H Memorial Camp, Monticello.

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May 12	Agronomy Experiment Station Field Day. Brownstown, Fayette County. 10:00 a.m.
May 21-22	Conference of Production Credit Association Fieldmen. Urbana.
May 26	Agronomy Experiment Station Field Day. Enfield, White County. 1:30 p.m.
May 27	Agronomy Experiment Station Field Day. Raleigh, Saline County. 1:30 p.m.
May 28	Agronomy Experiment Station Field Day. Ewing, Franklin County. 1:30 p.m.

(Note: The Dixon Springs Bull Sale previously scheduled for April 10 has been canceled.)

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PAC:sl
3/27/59

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Festival Speaker Predicts Larger Illinois Dairy Herds

URBANA--The average size of Illinois DHIA herds increased from 17 head in 1930 to 35 head in 1957, M. H. Alexander of the University of Illinois dairy science staff told a Farm and Home Festival audience here today.

Alexander predicted that future herds will probably be somewhat larger. It may even be profitable for some dairymen to increase their herd size to several hundred head.

But Alexander cautioned farmers to consider the available market outlets, the amount of risk capital they have available and their own skill as dairymen before deciding to increase dairy operations.

The state-wide increase since 1930 is due mainly to automation in feed production and milk handling, Alexander said. Since automatic equipment costs less per unit of production when it works nearly all of the time, there is an ever-present tendency to increase herd size.

Another factor in the increase is the management ability of the operator. Successful dairymen often tend to keep increasing their herd size in order to realize greater profits.

Alexander told farmers not to think that large herds will not make money simply because they know of one that failed. Small herds may not return a profit either he warned.

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PBJ:cm
3/27/59
NO

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Outlines:

FESTIVAL EXHIBIT FEATURES FREE SOFT-SERVE ICE CREAM--During a recent tour of the University of Illinois Dairy Manufactures building, these Urbana youngsters previewed what proved to be a very popular exhibit today at the UI Farm and Home Festival. The dairy technology exhibit features a soft-serve ice cream machine set to treat festival visitors to free soft-serve cones. Joe Tobias, who's doing the honors here and is in charge of the exhibit, says its purpose is to show, among other things, the way in which the product is made, its food value and its importance to the dairy industry.

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HDN:cm
3/27/59
NO

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Industry May Use Home Agricultural Surpluses

URBANA--Research into greater industrial uses for farm products is one key to breaking down giant agricultural surpluses, according to R. T. Milner, head of the University of Illinois food technology department.

Speaking today (April 3) at the UI Farm and Home Festival, Milner explained that it's wishful thinking to believe that research started now can find economic and new uses for grain presently stored under government loan.

In the past, highly publicized "myths" concerning possible industrial farm product uses received much public attention, only to fall through when actually tested. Early dreams of soybean plastics and power alcohol haven't materialized and no longer seem economically possible.

Many new ideas for farm product use in industry promise better results. Large acreages of newly developed high amylose corn, which compares in yield with present good hybrids, may soon be grown especially for industrial use. High amylose starch makes strong, flexible, transparent films similar to cellophane. The films are grease resistant, edible, and water souble and they can be made water resistant.

Ordinary corn starch and its derivities show promising industrial uses also. Milner estimates that, in the future starch from 100 million bushels of corn a year may possibly be used economically in ore purification and other metallurgical uses alone.

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Corn starch may also find use in making paper, and combined with cotton fiber it may someday make clothing so cheap homemakers will throw it away instead of washing it.

Competition between farm products and synthetic products for present markets is becoming keener each year. New crease resistant and wrinkle proof cotton fabrics seem to offer advantages over synthetics. And, tire cords made of improved cotton may soon be a reality.

If this encouraging trend is to continue, it will be necessary to augment agricultural research and maintain a consistent research program, Milner said.

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HDN:cm
3/30/59

FOR RELEASE FRIDAY, APRIL 3, 1959

Festival Coverage Packet

Discuss Lawn Insect Pests at Festival

URBANA--White grubs, ants, wasps, earthworms and sod webworms--these insects will probably find survival more difficult this summer. That is, if they live in lawns of persons who attended today's program on lawn insects at the Farm and Home Festival.

For L. L. English, entomologist with the Illinois Natural History Survey, described habits of the insects, how they cause lawn damage, where they are found and how home owners can control them.

The entomologist pointed out that grubs are the larvae of several beetles. They are whitish or grayish, have brown heads and either brown or black hind parts. They usually lie in a curled position too, he noted.

Grubs burrow around the grass roots and feed on the roots about one inch below the soil surface. Home owners have allies against grubs in moles, skunks and birds who consider grubs a great delicacy. In fact they may tear up the sod searching for them.

Ants build nests in the ground, forming hills around their nest openings. These hills and mounds often smother surrounding grass. If the ants nest about the grass roots, they may even destroy the roots. Ants also destroy grass seeds in the ground, preventing good stands.

During his presentation, English noted that probably not too many people are aware that the cicada-killer wasp digs nests or burrows in the ground. And like ants, they mound the soil at the nest entrance. These mounds make lawns difficult to mow; and the wasps make a nuisance of themselves.

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Earthworms do not feed on grass. Instead they ruin the appearance of lawns by forming small mounds or castings of soil.

Sod webworms, unlike earthworms, actually feed on lawns. They prefer new lawns especially, such as bentgrass, bluegrass and fescue. Irregular brown spots are the first signs of damage. If the infestation is heavy, large areas of grass may be damaged or destroyed in only a few days.

To control these insects, English suggested the home owner should first try to find out what pest is causing the damage. Although most of the lawn pests can be controlled with chlordane, dieldrin or heptachlor, details on the amount of chemical to use and methods of application should be obtained from your farm adviser.

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PAC:cm
3/30/59
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FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Vitamin E Important in Animal Nutrition

URBANA--Vitamin E helps to prevent the destruction of such substances as carotene, vitamin A and fats by oxygen.

As a result, vitamin E serves as a natural antioxidant that is needed to preserve these important nutrients in the ration as well as in the tissues, according to H. H. Draper, assistant professor of animal nutrition in the University of Illinois Agricultural Experiment Station.

Speaking today to a Farm and Home Festival audience, Draper pointed out that some recently developed synthetic antioxidants have been found to be as effective and cheaper than vitamin E for preserving such ration ingredients as alfalfa meal and animal fats.

The result of this experimental work indicates that most of the symptoms of vitamin E deficiency that may be found in experimental animals probably are due to the role of that vitamin as an antioxidant.

Vitamin E deficiency in chicks can lead to brain lesions that cause extreme nervous symptoms that have suggested the name "crazy chick" disease, Draper said. Under other conditions, a watery fluid collects in the body cavity, heart sac and elsewhere caused by leakage from the blood vessels.

In lambs and calves, vitamin E deficiency causes muscular distrophy, a degeneration of the muscle cells that leads to weakness of the leg muscles as well as damage to the heart. This condition is

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often referred to as white muscle disease or, in lambs, stiff lamb disease.

Most farm animals will not develop these symptoms of vitamin E deficiency under practical feeding conditions. But white muscle disease and crazy chick disease cases are occasionally found in farm animals.

In most cases, stiff lamb disease can be combatted by feeding the ewe high quality hay or whole cereal grains, which are good sources of vitamin E, or by treating the lamb with wheat germ oil. Some outbreaks, however, are resistant to treatment with vitamin E, and it has been recently found that the inorganic element, selenium, is effective.

Areas of selenium deficient soils have been found in certain western states where muscular distrophy is a problem in both cattle and sheep. Researchers still do not know how many selenium-deficient areas exist in the country or what proportion of the outbreaks of white muscle disease is due to the lack of this element, Draper reported.

Research has already found that the accumulation of fluids in the tissues of chicks, which was formerly attributed to vitamin E deficiency, can also be prevented with selenium.

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RAJ:cm
3/31/59

FOR RELEASE THURSDAY, APRIL 2, 1959

Festival Coverage Packet

Festival Visitors Hear Cattle Feed Additive Report

URBANA--Nutrition history may some day refer to the late 1940's and early 1950's as the "era of feed additives", University of Illinois animal science researcher W. W. Albert told a Farm and Home Festival audience here today.

Researchers have successfully added hormones, chemicals and pharmaceuticals to cattle rations for faster and cheaper gains. Albert said more than 2/3 of all fattening cattle now get hormones.

Tests show that stilbestrol and synovex, the two commonly used hormones, increase daily gains about 15 percent and improve feed efficiency about 12 percent.

Antibiotics such as aureomycin or terramycin at 70 to 80 milligrams a head per day have increased gains on roughage rations about 10 percent, Albert reported. Levels up to 500 milligrams a day help cut shipping fever losses.

Albert cited urea as a satisfactory source of up to 1/3 of the nitrogen in fattening rations. Urea is less satisfactory for growing rations. Liquid molasses supplements have been no better than oil meals, the researcher said.

A 68-day Illinois finishing test failed to get response from feeding the tranquilizer hydroxyzine. Albert said tranquilizers do promise to reduce shipping shrink.

Dynafac has shown negative results in Illinois tests, although some states report favorable results. Tapazole apparently stimulates gain early in the feeding period but causes a later decline.

Other compounds including dried rumen additives, brewers' yeast, fish solubles and dried molasses have shown little or no response, Albert reported. Enzyme additives are in the testing stage.

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PBJ:cm
3/31/59

THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, observations and activities at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

This week finds the crew of pasture stimulators busy top dressing nitrogen, phosphorus, and potash fertilizers. It finds the sheepmen and cattlemen eyeing the pastures and getting ready to turn on. It finds Doc Mansfield, Station Veterinarian, in a good mood as he checks rod and reel in anticipation of good fishing and a reduced livestock health problem with the pasture season.

Fescue--Early Pasture

The promises of approaching spring and the grazing season will be more nearly fulfilled if we are careful at the start. Most pastures, if they are to return the most, should be allowed to reach a growth of about six inches. One pasture grass which generally fools us, however, is tall fescue. It starts growing earlier than most plants and often reaches grazing height sooner than we expect. Its very value and best use depends upon closer and harder grazing than on most pasture plants. On the Station, it is the fescue pastures the livestock men are eyeing. It is the fescue pastures which are tempting Doc to check his tackle box.

Shearing School

Shearing school, under the guidance of Dick Carlisle, Don Walker, and Terry Greathouse, livestock extension men was held during the last week in March. Let this be a reminder to all of us to make arrangements very soon for shearing our own flocks. We'll need to locate wool sacks, twine for tying fleeces, and make arrangements with a shearer. Every year many sheepmen get their flocks shorn later than they had planned because good shearers are usually busy.

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Early shearing means cleaner wool with fewer dung locks. Shorn ewes in bad weather will take their lambs to shelter sooner than will unshorn ewes. As the fly season comes in, maggots are less of a problem on shorn sheep. Also, early shear cuts are generally healed before the fly season. Furthermore, most of us have more time to shear and take care of the wool crop now than we will later with the rush of work during corn planting and haying season.

Implant Pasture Steers

If you will implant your yearling steers going on to pasture with 24 mg. of stilbestrol you can expect roughly 10 percent more gain this summer. Also, re-implantation as the steers go onto feed late this summer or this fall will be well worth while.

HAC:rm
4/1/59

ILLINOIS FARMERS' OUTLOOK LETTER

CROP PRODUCTION MAY BE SMALLER, NOT LARGER, THIS YEAR THAN IN 1958

URBANA, ILLINOIS APRIL 1, 1959

In most years the USDA report of Prospective Plantings, which is issued in March, attracts very little attention. But this year the headline hunters and farm alarmists went into a panic over one item in the report.

The panic-producing item was that farmers planned to increase corn acreage by 12 percent over last year. The expounders seized upon this figure, and conjured up a vision of an unmanageable flood of feed pouring from our fields next fall.

But before the rest of us become unduly alarmed by their vision we ought to study some of the other pertinent facts to get a more realistic picture of the whole feed situation. When we do this, we will find that total feed production is likely to be smaller, not larger, this year than it was last year.

FACT 1. Farmers plan to plant 83.9 million acres of corn this spring, or 9.3 million more than last year. Some of this increased acreage will be on land that farmers put into the soil bank corn acreage reserve program last year. In general this land was in the poorest areas of the poorest counties. Taking it out of production did not materially cut corn output. And planting it back to corn probably will not add much to the corn crop.

FACT 2. Farmers plan to cut the acreage of most other feed crops. As compared with last year, they plan to produce 2.4 million acres less of oats, 2.5 million acres less of hay, 1.7 million acres less of soybeans, and 0.7 million acres less of sorghum. (Farmers planned to increase plantings of barley by 0.8 million acres.)

FACT 3. Average per acre yields of feed grains were 14 percent higher in 1958 than ever before. This was not due to any big increase in the use of fertilizer, but to unusually favorable weather over most of the United States. The only drouth area was a strip in North Dakota and Montana along the Canadian border. Such favorable weather and high yields are not likely to be so widespread this year.

(Continued)

FACT 4. If farmers plant and harvest the acreage of feed grains reported in March, --a if the acre yield is equal to the high average of the past three years, total production of feed grai would be 153 million tons, or 3 percent less than last year.

FACT 5. If farmers harvest the acreage of hay reported in March, --and if the acre yield equal to the high average of the past three years, the production of hay would be 114 million ton or 7 percent less than in 1958. Ranges and pastures, too, are likely to produce less feed than th did in 1958.

FACT 6. If farmers plant and harvest the indicated acreage of soybeans, --and if the ac yield is equal to the high average of the past three years, the production of soybeans would be 5 million bushels, or 11 percent less than last year. Soybeans produce most of the protein supple ment used in rations for livestock and poultry.

FACT 7. While feed production seems quite likely to be reduced this year, numbers grain-consuming animals--hogs, poultry and beef cattle--are increasing. Thus feed production w probably be more nearly equal to feed use in the year beginning July 1 than it is this year.

L. H. Simerl
Department of Agricultural Econom

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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Farm News

ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

all Black Insects Not Hessian Flies

URBANA--Farmers in central, western and southern Illinois e reporting large numbers of small black, gnat-like insects in their eat fields.

These insects should not be confused with the Hessian fly. B. Petty, extension entomologist with the University of Illinois and e Illinois Natural History Survey, says that they are fungus gnats, ich can fly as well as leap. They feed on molds and other fungi and e usually found in damp places where there is an abundance of decaying ganic matter.

Petty adds that these insects are most abundant in wheat elds where old soybean stubble and trash are decaying. But they do harm the wheat, and consequently there is no need to apply control asures.

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5/59

FOR IMMEDIATE RELEASE

UI Continuing Chemical Fruit-Thinning Investigations

URBANA--University of Illinois horticultural researchers are continually studying chemical thinning of fruit trees, the most valuable development in recent years toward reducing fruit production costs.

Frank W. Owen, UI extension fruit crops specialist, adds that, because of the high cost of hand thinning, chemical thinning of deciduous fruitwill undoubtedly increase.

He points out that in 1957 it cost $75 to $200 per acre to hand-thin heavily loaded trees, whereas chemical thinning cost only about $5 or $6 an acre. However, with rising costs since 1957, both of these figures have probably increased.

Chemical thinning's biggest saving comes from reduced labor costs. It takes one man all day to hand-thin 20 to 30 trees, but with chemical thinners one man can thin 20 to 30 acres in one day.

There are two reasons for thinning fruit: (1) removing undesirable fruit channels the tree's vigor toward producing larger and better quality fruit, and (2) thinning results in crops of more equal size each year.

How does chemical thinning work? Owen replies that the chemical's action destroys part of the bloom so that it will not set fruit. Just how it works depends on the individual chemical.

For example, CIPC creates a caustic action, burning the bloom. This material, applied at blooming time, is used for peach thinning.

Dinitro materials, used for apple thinning, cause the same type of burning action.

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Amid Thin, a hormone material, does not cause physical plant damage. Instead it enters the plant's sap stream and causes the weaker fruit to drop off.

Many problems confront growers who use chemical thinners. And it is in this area that the UI researchers are pin-pointing their work.

Perhaps the biggest problem is accurate timing of application. If the treatment is applied at the wrong time, the whole crop can be lost, or no thinning at all will occur. Atmospheric conditions, particularly humidity, present another problem. A high humidity level at application time slows the chemical's drying. The result is more fruit drop than was planned for, unless the material is diluted to a lesser concentration.

Tree variety and tree vigor are two more factors that must be considered in determining the amount and concentration of chemical to use.

UI research centers around all of these problems. Plant scientists are continually seeking more information on them so that they can better advise growers how and when to use chemical thinners.

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PAC:cm
4/6/59

FOR IMMEDIATE RELEASE

Hold State Junior Showmanship School in Springfield

URBANA--More than 1,000 Illinois 4-H and vocational agriculture boys and girls will meet at the State Fairgrounds Coliseum in Springfield on Saturday, April 18, for the Junior Judging and Showmanship School.

Sponsored by the Land of Lincoln Purebred Livestock Breeders' Association, in cooperation with the Cooperative Extension Service of the University of Illinois and the State Department of Vocational Education, the school is scheduled to start at 10:00 a.m.

The young people will be divided into groups during the morning session for instruction in grooming, fitting and showing beef, sheep and swine. Extension livestock staff members from the UI College of Agriculture and several outstanding breeders will serve as instructors.

After lunch the juniors will practice what they learned in the morning by judging 10 rings of livestock. They will judge three rings of cattle, four rings of hogs and three rings of sheep. Judging cards will be used but will not be scored.

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4/6/59
NO

FOR IMMEDIATE RELEASE

Peoria County Boy Wins 4-H X-Tra Yield Corn Contest

URBANA--Harley Doubet, Hanna City, Peoria county 4-H boy, has been named winner of the 1958 Illinois 4-H X-Tra Yield Corn contest. His winning yield was 213.4 bushels an acre.

This yield compares with the 205-bushel-an-acre average of last year's winner, Andy Edwards of Tolono, Champaign county.

Winners were announced and prizes awarded at the annual 4-H X-Tra Yield Corn contest banquet on Saturday, April 4. The banquet was one of the features of the 1959 Farm and Home Festival.

District X-Tra Yield contest winners also announced were James Holderman, Jr., Morris, 170.2 bushels, district 1; Doubet, district 2; Dick Stone, Decatur, 194.9 bushels, district 3; John Akin, St. Francisville, 166.0 bushels, district 4; and Marvin J. Will, Equality, 139.1 bushels, district 5. Doubet was district 2 winner last year with an average yield of 161.3 bushels.

The yield contest was judged on the basis of corn grown on a five-acre supervised plot last summer. Yield counted for 60 percent of the contestant's score, costs for 20 percent and quality for 20 percent. Each district winner was awarded a wrist watch and ribbon, with a trophy for Doubet.

Five other 4-H'ers were awarded $100 scholarships in the same contest on the basis of their projects and activities in 4-H Club work, their leadership and personal development.

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Scholarship winners are Raymond Feldt, Fulton, district 1; vid Hembrough, Jacksonville, district 2; Jo Mar Alwes, Bloomington, strict 3; John Lebeck, Harvel, district 4; and Robert Rathmather, lsh, district 5.

Featured speaker at the banquet was William J. Kuhfuss, esident of the Illinois Agricultural Association. Toastmaster was rd Lawler, manager, Plant Food Division, Illinois Farm Supply Com- ny, while Fred Herndon, president of the Illinois Farm Supply, pre- nted the awards.

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6/59

FOR IMMEDIATE RELEASE

Reduce Number of Counties; Save Tax Money, Economist Declares

URBANA--Merging Illinois' 102 counties into 24 efficient units 10 years ago probably could have reduced tax budgets for some county functions by about 40 percent, according to C. L. Stewart, University of Illinois land economist.

Stewart lists large budgets for local government units and the difficulty of finding substitute tax sources as the major reasons why high farm land taxes have not been reduced.

He readily recognizes the great resistance that would be encountered in even partial merging of county government units. Who would consent, within 10 years from now, to seeing any major county function, such as policing or recording, performed in only a fifth as many places in the state? he asks.

Stewart points out that school consolidation was strongly resisted for years. But it came swiftly when once started. County consolidation might soon be just as practical, he believes.

Cuts in real estate taxes on farms and other property must start with two long-term and one immediate change, Stewart says. The nearest to home of all of them is the dropping of townships as governmental units. It would not be surprising to see a 5 percent decrease in the real estate tax load in rural areas from this change.

Next closest is the consolidation of county functions across county lines. Even though substitution of large counties for groups of smaller ones may be put off for a decade, much can be done now to make intercounty economies in the purchase of materials, supplies and equipment and in other ways.

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Missouri's 1945 constitutional revision provides that contiguous counties, not exceeding 10 in number, may, by popular vote in each county, join in performing any common function or service or in employing any county officer or employee common to the counties. In Georgia contracts up to 50 years' duration may be made in the pursuit of such functional consolidation.

Illinois landowners paid a tax of $1.28 per $100 current value of farm real estate last year, Stewart points out. Even if this amount had been cut to $1.00, it would still have been higher than in 30 other states.

In Illinois 77.7 percent of the total revenue receipts for public elementary and secondary schools come from local taxes, 20.7 percent from state and only 1.6 percent from federal sources. It therefore seems that, even though Illinois pays more into the federal treasury than she gets out of it in any system of grants among the states, it may be better to accept federal school support than to let the prospects for higher real estate taxes continue unabated, Stewart reasons.

Some people feel that continued land price advances have been justifiable reasons for keeping real estate taxes high. Much of the upward pressure on land prices has come from farmers' feeling the need to enlarge farms, Stewart points out. For many owners the federal capital-gains tax also discourages selling land. This reduces the number of farms offered for sale. On the other hand, many buyers have bid up land prices in seeking to acquire property as a hedge against inflation.

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4/6/59

FOR IMMEDIATE RELEASE

Illinois Bankers Plan Annual Agricultural Conference

URBANA--More than 300 bankers are expected to gather at the University of Illinois on April 15-16 to find out about current farming trends and farmers' needs for credit.

During the two-day session they will hear authorities on the College of Agriculture staff describe the latest developments in fertilizer use, hog production, contract feeding, narrowing profit margins, farm law, farm outlook and farm policy.

A three-man panel of farmers will discuss the kind of service they expect from banks. Lowell S. Hardin, head of the Department of Agricultural Economics at Purdue University, will address the dinner session Wednesday evening on "Financing Tomorrow's Agriculture."

Stimulating question-and-answer sessions following each talk are expected to give conference guests valuable opportunities to get help on their particular problems.

The conference is arranged and conducted by the College of Agriculture and the Illinois Bankers Association in cooperation with the division of University Extension.

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4/6/59

FOR IMMEDIATE RELEASE

Ways To Get Milk You Need--For Less Money

URBANA--Alert shoppers can get even more valuable milk nutrients for their money than they are now getting, according to the new University of Illinois publication, "Buying Milk--Get the Most for Your Money."

This publication suggests these possibilities for stretching the milk dollar: (1) carry milk from the store, (2) check home-delivery discounts, (3) price large containers and (4) price the different forms of milk.

In many cities consumers save one to three cents a quart by carrying milk from the store instead of having it delivered. In other areas milk-delivery firms charge less if a certain number of quarts are ordered regularly.

But, according to the publication, whether homemakers have milk delivered or buy it at the store, they should price large containers. A recent national survey showed that milk bought in half-gallon containers cost an average of 3.2 cents less per quart than milk bought in single-quart containers. The price spread was even greater for gallon containers.

Economical milk forms include nonfat dry milk, evaporated milk, skim milk and buttermilk. All are satisfactory for beverage and cooking purposes and, though they can't replace it, they are economical supplements to fresh whole milk.

Nonfat dry milk costs 50 to 60 percent less than whole milk, evaporated milk 10 to 15 percent less and skim milk and buttermilk usually one to three cents less than whole milk.

For economical milk-buying tips, write for the publication, "Buying Milk--Get the Most for Your Money," 330 Mumford Hall, University of Illinois, Urbana.

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EDN:cm
4/6/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Sprays and Dusts for the Garden

by University of Illinois
Departments of Horticulture and Plant Pathology

URBANA--To effectively control insects and diseases, plants should be sprayed or dusted regularly on a preventive basis. Otherwise a disease or insect can often cause a maximum amount of damage before it is discovered.

Whether to use a dust or spray depends on the type of plant. Listed below are recommendations for flowers, vegetables and fruits.

Flowers: Dusts are much better than sprays for flowers, as they are easier to apply and have better sticking ability if applied when the foliage is wet. Special equipment is not required either. All-purpose mixes, such as rose dusts and all-purpose flower dusts, are recommended for home use. Containing both insecticides and fungicides, these mixes will control practically all common insects and diseases.

Vegetables: Either sprays or dusts are satisfactory for vegetables. However, dusts are again easier to apply and do not require special equipment. All-purpose vegetable dusts, if used correctly, will control both insects and diseases. Home-mixed sprays, though, will often give better control. Here are the basic materials needed for making sprays that will control most vegetable diseases and insects: malathion as the insecticide and maneb, zineb or captan as the fungicide. Specific problems will require a more specific mix.

Fruits: Spraying fruits, such as apple trees or strawberry patches, gives better control than dusting. Spraying also gives better coverage with less effort. Although all-purpose sprays are available for fruits, they do not give adequate control. So here are the basic materials needed for a home mix: lead arsenate, DDT and malathion as the insecticides and captan, ferbam and wettable sulfur as the fungicides.

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In applying sprays or dusts, thoroughness is the most important step. Be sure to cover all parts of the plant, including both sides of the leaves. If dusting, apply the material in the early morning or late evening when the leaves are damp and the air still.

If spraying, apply the material any time when the wind is fairly calm.

In the above recommendations, the amount to use, time to make applications, and other details have not been given. The reason is that this information is too detailed to present here.

If you wish this information, ask your county farm adviser for a copy of the spray schedule for flowers, vegetables or fruits. Or write directly to the Department of Horticulture, 124 Mumford Hall, Urbana.

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PAC:cm
4/6/59

THIS WEEK . . .

AT DIXON SPRINGS

(A round-up of the week's work, observations and activities at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

For several years the Dixon Springs Experiment Station has been cooperating in a beef cattle breeding project with several other agricultural colleges in the North Central Region. Now we are participating in a cooperative regional sheep breeding project.

To get this project under way, sheep researcher Jack Lewis, went to Montana to select a flock of yearling Targhee ewes. These ewes have arrived on the Station and are now tasting some of the southern Illinois fescue.

Project Plan

We plan to maintain 150 purebred Suffolk ewes and 150 purebred Targhee ewes. One hundred ewes from each flock will be bred to rams of their own breed to produce purebred lambs. Fifty ewes from each flock will be bred to rams of the other breed so that we'll have approximately 100 crossbred lambs each year. This alone will permit evaluation of the advantages or the disadvantages of crossbreeding Suffolks and Targhees.

More Ambitious

As valuable as the crossbred information will be, the plan is much more ambitious. The program is designed to learn how different characteristics are inherited. For example, is the length of fleece highly inherited so that it may be bred for, or is it lowly inherited? The way in which characteristics are inherited is important. We must know before we can make progress by breeding selection. Another example: perhaps length of wool and carcass conformation are opposed to one another. This is only perhaps. Perhaps we can't select for both. Maybe if we select for one we will lose the other.

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By Looks

How often we are disappointed in our breeding programs by selecting on appearance only. A beautiful animal, the type that seems ideal, may produce offspring that are far from the ideal. The new breeding program with sheep may uncover some physical measurement that we can use in selecting animals which will consistently produce offspring with one or several highly desirable characteristics.

People Involved

Such a breeding project calls for help from many University specialists. It calls for geneticists, statisticians, meats specialists, wool specialists and good managers of sheep. This is a widely cooperative project involving assistance from several University of Illinois departments. We expect great things from this study.

For The Worms?

Pelleted feeds for sheep and cattle have proved themselves in many feeding trials. But Bob Webb, station superintendent, felt that pellets had really arrived after he received a certain letter. This letter came from a worm hatchery in Texas. This hatchery has been experimenting with many feeds and bedding for earthworms and is now interested in securing pelleted hay for its worms. We cannot say or even estimate the potential consumption or market for hay pellets as worm feed, but we can say that now the acceptance of pellets is well-nigh universal.

HAC:cm
4/8/59

ILLINOIS FARMERS' OUTLOOK LETTER

CATTLE PRICES ABOVE NORMAL IN RELATION TO PRICES OF OTHER FARM PRODUCTS

URBANA, ILLINOIS APRIL 8, 1959

Cattle are marching in first place in the farm price parade. In March cattle prices stood at 100 percent of parity--and without benefit of price support, production controls, marketing quotas, direct payments or export subsidies.

Nor was this high standing achieved by small marketings. Beef output in February and March was equal to that of the same months of 1958. And in 1958 there was enough beef to allow 80 pounds for every person in the United States. That was 5 pounds more than the 1949-58 ten-year average. And that ten-year average is the largest on record.

Prices of cattle have stood up well under unusual competition from other meats. The February-March output of pork was up 22 percent over 1958 figures, and the supply of broilers was probably up 10 to 15 percent.

A boost in consumer incomes has helped to support the demand for beef. Personal income was flowing in February at a record rate of $365 billion a year--a billion dollars a day! That was 5 percent more than one year before. And there was a further increase in March.

Recent prices for cattle have been relatively higher than prices of closely associated farm products. Compared with the 1949-58 ten-year averages, cattle in March were 20 percent higher than milk, 41 percent higher than hogs and 59 percent higher than corn.

Recent cattle prices have been about midway between the highest and lowest annual averages of the past ten years. Highest yearly average price for steers at Chicago was $35.72 in 1951. Lowest was $22.00 in 1956. Steer prices at the end of March were $28.73.

At the same times the farm prices of corn averaged $1.66, $1.30 and $1.06.

Consequently 100 pounds of steers were worth as much as 21.5 bushels of corn in 1951 and only 17.2 bushels in 1956. But 100 pounds of steers was worth as much as 27.1 bushels of corn at the end of last month.

(Continued)

Obviously prices of cattle and corn have strayed far from their normal relationship.

Recent hog prices, too, have been high in relation to corn, but not so high as cattle. Th hog-corn price ratio in March was 14.5 compared with a ten-year average of 13.1. Highest annua average in the past ten years was 18.2 in 1958. Lowest average was 11.0 in 1952.

Cattle prices apparently have the most adjustment to make. Abundant feed supplies pro duced in 1957 and 1958 have been holding cattle on farms and ranches. The accumulation bega in November 1957 and has been going on for over 17 months. Not all of the holding has been fo breeding purposes. For example, the number of steers on farms January 1 was up 8 percent from year earlier, and up 12 percent from two years before.

So far this year, fewer cattle have been slaughtered than in 1958. But by late summer o early fall, cattle slaughter may be running well over 1958 levels. Most ranch cow herds have bee rebuilt, and sales of cows will probably increase moderately. The actual rate will depend somewh on the weather.

L. H. Simerl
Department of Agricultural Economi

THE UNIVERSITY OF ILLINOIS
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Urbana, Illinois

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Director

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Farm News

ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Appoint R. O. Lyon to Head 4-H Office

URBANA--Richard O. Lyon was recently named state leader in charge of 4-H Club and Rural Youth work in Illinois.

Lyon replaces former state leader O. F. Gaebe, whose recent death left the position vacant. Lyon has 14 years of previous experience as an Illinois 4-H specialist.

The new state leader was graduated from the University of Illinois with a B.S. in general agriculture in 1939. He received an M.S. in extension administration from the University of Wisconsin in 1958.

Lyon is a charter member of the Iroquois County Rural Youth. He grew up in the Watseka area, where his parents, Mr. and Mrs. William Lyon, still live. He is a member of the college honoraries Gamma Sigma Delta and Epsilon Sigma Phi.

Before taking the 4-H position, Lyon was an administrative assistant for the Cooperative Extension Service at the University of Illinois. He was also a vocational agriculture instructor for six years.

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BJ:cam
/8/59

FOR IMMEDIATE RELEASE

Researchers Try Fighting Nematodes With Nematodes

URBANA--University of Illinois plant pathologists are twisting the old adage, "Fight fire with fire," around a bit. Now they hope to use nematodes to fight nematodes.

M. B. Linford, University of Illinois plant pathologist in charge of the nematode research work, explains that nematodes are tiny worms that feed in or on the roots of plants. Although they are common in Illinois soils, nematodes are so small that researchers have to use a microscope to see them.

Linford's nematode research summary appears in the spring issue of Illinois Research released this week. Illinois Research is a quarterly publication reporting latest Illinois Agricultural Experiment Station research findings.

Nematodes are not yet a general problem in Illinois, the plant pathologist says. But plant disease workers are looking for control measures to prevent possible future trouble.

The tiny worms can cause potentially serious damage to Illinois corn, soybeans, small grains and hay. Study of a severe corn root disease in Will county revealed that certain nematodes may be associated with corn root rots.

Soil fumigation does a good job of controlling nematodes, but the cost is too great for Illinois field crop use, according to Linford. So plant pathologists are now looking into a possibly cheaper method known as biological control.

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Linford explains that biological control refers to controlling insects with their own natural enemies. Like most living things, nematodes have natural enemies which either kill them for food or reduce their ability to multiply.

Illinois plant pathologists are now studying certain types of nematodes known as predaceous nematodes. They thrive on a diet of other kinds of nematodes, including harmful types. Linford is studying a group of helpful nematodes with the tongue-twisting name Aphelenchoides.

Researchers know that it is possible to raise huge numbers of these predaceous nematodes in the laboratory. But they may not multiply so quickly in the soil because soil environmental conditions will not be so favorable.

Greenhouse trials are designed to find out which types of nematodes are the most promising biological control agents. It is possible that none of the helpful nematodes can do enough good to justify the cost of adding them to the soil.

Keeping these things in mind, Linford and his staff are trying to find out how well the biological control will work. Then they will concentrate research efforts on what precautions are needed to keep from losing the benefits and what can be done to get even better biological control.

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PBJ:cm
4/9/59

FOR IMMEDIATE RELEASE

Dog and Cat Vaccinations Urged for "Animal Health Month"

DIXON SPRINGS--Nearly 100 dogs owned by staff members of the Dixon Springs Experiment Station helped launch Animal Health Month by getting their rabies vaccinations. Station veterinarian M. E. Mansfield says this is no "April Fool" program, as early in March Secretary of Agriculture Benson proclaimed April as Animal Health Month.

Dixon Springs folks are convinced that this idea provides good insurance for their dogs. The prevalence of rabies in wild animals has been increasing. Animals that dogs encounter, such as raccoons, foxes, skunks and even bats, are known to carry the dreaded virus. Dogs cause the largest number of cases in humans in this country.

People who vaccinate their dogs have eliminated danger to themselves and the certain loss of a valued animal. Rabies is always fatal if an animal is not protected by vaccination. If a person is bitten by a rabid animal, the painful and sometimes dangerous "Pasteur treatment" consisting of 14 or 21 shots must be given.

Veterinarians at the University of Illinois College of Veterinary Medicine suggest that cats as well as dogs be vaccinated if they are allowed to roam. Domestic cats are the second greatest source of human rabies.

Animal Health Month is a good time to consider the health of all domestic animals, the veterinarians point out. Many other diseases besides rabies can be transmitted from animals to man. These include tuberculosis, brucellosis and trichinosis.

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Preventive examinations for all domestic animals are also dvised. Dogs should receive inoculations against distemper and in-ectious canine hepatitis. In some places, vaccination for canine eptospirosis may be desirable. Cats should be protected against anleucopenia, feline distemper and infectious pneumonitis.

Protecting large animals and poultry presents problems that equire careful study of the farm operation by the owner and veteri-arian before specific recommendations can be made.

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FOR IMMEDIATE RELEASE

Illinois Girl Leaves for IFYE Stay in Wales

URBANA--Janet L. Bateman of Mansfield, left New York City on April 9 on the S.S. UNITED STATES en route to England and Wales, where she will live and work with farm families as an International Farm Youth Exchange (IFYE) delegate. She is scheduled to return to the United States in September.

Janet is one of a group of 18 IFYE delegates leaving the United States to visit rural families in seven countries. A total of 95 "Grass-Roots Ambassadors" will leave the United States in four groups this year, bound for 46 countries in Europe, Africa, Asia, Latin America and the Pacific. They represent 39 states.

The IFYE program, sponsored by the National 4-H Club Foundation and the Cooperative Extension Service of the U. S. Department of Agriculture and the Land-Grant Colleges and Universities, is a people-to-people project for promoting understanding and friendship. Under the program, selected rural young people from the United States participate in home, farm and community activities in other countries for four to six months, and youths from those countries come to live with farm families in the United States.

The exchange is financed by private support from business, industry, foundations, 4-H Clubs and other local and civic groups and individuals. Since the program began in 1948, 1,010 U. S. delegates and 1,179 exchangees from other countries have participated. Exchanges with approximately 50 countries are planned in 1959.

Janet attended an orientation program in Washington, D. C., before leaving the United States. The program included discussions on such subjects as understanding people, world agriculture, trade, U. S. foreign policy, and the American way of life. She also visited the Embassy of England.

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FOR IMMEDIATE RELEASE

Weigh-A-Day Dairy Record Plan Grows Rapidly

URBANA--Weigh-A-Day-A-Month, or WADAM, is the fastest growing dairy record-keeping program in Illinois today. During 1958, 372 herds in 45 counties were enrolled in WADAM, an increase of 107 over the previous year.

And growth continues at a rapid pace, reports Ralph Johnson, extension dairy specialist at the University of Illinois College of Agriculture. Dairymen in Cumberland, Edwards, Ogle, Rock Island, Washington and Wayne counties have started keeping WADAM records since the first of this year.

WADAM is a simplified record system in which the dairyman weighs the milk from each cow one day each month. He sends this report to his county farm adviser, who sees that the records are calculated and the completed reports are returned to the dairyman.

The milk records calculated in the WADAM program can be a valuable guide in the feeding, culling and breeding of any herd where production records are not now being kept, concludes the specialist. Dairymen who are interested in enrolling in WADAM are urged to contact their county farm adviser for further details.

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4/9/59
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FOR IMMEDIATE RELEASE

Inspection Can Uncover Most Farm Fire Hazards

URBANA--Inspecting farm buildings for fire hazards is unexciting work. Only rarely, if ever, will you have the satisfaction of knowing that you have prevented a fire as a result of a particular inspection.

Yet you can see the advantage when all inspections in Illinois are added together, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

It is much easier to correct a structural fault than to change personal habits. Hogsett points out that more than three-fourths of all fire damage to farm buildings results from some construction fault that a careful inspection could have found.

Fire waste is an especially serious problem to farm families. Because of the difficulty of putting out fires on a farm, careful inspection and diligent effort to prevent fire can produce excellent results.

Farm families can control fire if they will. The question is: Will they?

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OLH:cm
4/9/59
NO

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Square Dance Events on Festival Program

URBANA--Square dancers are invited to take part in the square dance events during Farm and Home Festival April 2 and 3 at the University of Illinois.

Two events are scheduled for Thursday, April 2, in the English Building on the Urbana campus, both from 7:00 until 11:00 p.m. Beginning squares and mixers will be in charge of Mr. and Mrs. Francis Kirby, Champaign, and Arvid Olson, Moline, in the Upper Gym. Joe Maddox, Beeson, and Bill Bishop, Decatur, will call squares in the Lower Gym for intermediate and advanced dancers, along with other members of the Illinois Square Dance Callers Association.

On Friday, April 3, square and folk dancing will be held in Huff Gym from 7:00 until 11:00 p.m. with Ed Epperson, Ottumwa, Iowa, calling. An eight-year veteran caller, he calls regularly each week for two clubs. He attended the Les Gotcher Square Dance Institute at Kirkwood Lodge on Lake of the Ozarks for four years and has taught classes and traveled throughout Iowa and parts of Illinois.

Exhibition squares will be danced at intervals throughout the evening and at intermission.

Dancing is open to anyone. The Promenaders Square Dance Club of Champaign is the host club for this event.

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4/9/59

FOR IMMEDIATE RELEASE

Harold Harms Returns From Nicaragua

URBANA--Harold Harms, International Farm Youth Exchange delegate from Illinois, returned to Washington, D. C., on March 8 after spending five months living and working with farm families in Nicaragua.

Harms, of Route 2, Onarga, is one of the three 1958 delegates who spent four days in the Nation's Capital evaluating their experiences abroad. This final consultation program, arranged by the National 4-H Club Foundation, includes visits with officials of the Departments of Agriculture and State, the embassies of their host countries and the IFYE staff of the National 4-H Foundation.

Harms will have a report session with the Illinois State IFYE committee at the University of Illinois on Saturday, March 21. Following his return home, he will be available to groups for several months to report his experiences. Interested groups should contact him through either the Iroquois county farm or home adviser, Watseka.

During 1958 a total of 116 U. S. delegates from 36 states went abroad to 44 countries, while 147 exchangees from 44 countries came to the United States to live with rural families. Illinois sent four delegates and received 15 exchangees.

The International Farm Youth Exchange, a people-to-people program, is conducted in the United States by the National 4-H Club Foundation and the Cooperative Extension Service. It is financed by voluntary contributions of 4-H Clubs, civic and rural groups, business concerns, individuals, foundations and others interested in world understanding. Harms' visit to Nicaragua was made possible by a grant from the Olin-Mathieson Chemical Corporation to the National 4-H Club Foundation.

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4/10/59
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FOR IMMEDIATE RELEASE

Rename Kammlade to Head State 4-H Foundation

URBANA--W. G. Kammlade, associate director of the Cooperative Extension Service at the University of Illinois, has been renamed chairman of the Illinois 4-H Foundation for 1959.

At the same time, Trevor L. Jones, Springfield, was elected vice-chairman to succeed A. F. Stephens, St. Louis, and O. F. Gaebe, associate professor of 4-H Club work in Illinois, was renamed secretary-treasurer.

These actions were taken on Friday, March 6, in Urbana at the fifth annual meeting of the Foundation Board of Directors.

Directors renamed to the board were Mrs. Fred Francis, Wilmington; M. C. Lockard, Mattoon; D. C. Womeldorff, Dixon; Jones and Stephens. New appointments to the board were Miss Laura Heddleson, Paris, president of the Illinois Home Advisers Association; Earl D. Peterson, Hillsboro, president of the Illinois Farm Advisers Association; Miss Florence Kimmelshue and F. H. Mynard, state 4-H staff representatives, Urbana; and Mrs. Horace M. Smith, Greenville, president of the Illinois Home Bureau Federation.

In further action at the annual meeting the board approved a $30,000 budget for 1959. All money disbursed by the Foundation is contributed for the support of the 4-H Club program, both in Illinois and in support of the National 4-H Foundation.

Program areas that will be supported financially in 1959 include the citizenship program, recognition and training of leaders,

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recognition and training of members, general Foundation expense, new programs and continued support of the National 4-H Foundation program, according to Secretary-Treasurer Gaebe.

Board members during the meeting asked for further emphasis to be placed this year in the area of leadership training for local volunteer 4-H Club leaders. Present leadership training activities include quarterly leader training schools held throughout the five extension districts in Illinois, the annual State 4-H leaders' recognition banquet and many subject-matter leader training meetings.

Three special fund-raising drives during 1958 were made by the members of the ways and means committee under the chairmanship of Trevor Jones. Groups contacted in these successful drives were the banks, feed dealers and machinery dealers. The board members expressed their appreciation to these groups for their earnest support of the Illinois 4-H Club program through their financial donations.

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1/10/59

FOR IMMEDIATE RELEASE

Special to Northern Illinois Dailies

Onion Maggots Resist Most Previously Effective Materials

URBANA--Onion maggots in Illinois have become resistant to most insecticides that previously gave effective control. This report comes from W. H. Luckmann, entomologist with the Illinois Natural History Survey.

According to Luckmann, the habits of the onion maggot have changed so much in the past year that for control purposes it must be considered a new insect. The onion maggot has developed a resistance to the "chlorinate hydrocarbons." Included in this category are chlordane, aldrin, dieldrin and heptachlor.

Luckmann adds that some farmers who used these materials in 1958 did not have too much onion damage. But these four materials are not considered effective any longer.

In their place Luckmann recommends using diazinon. This insecticide gave excellent control in experiments conducted last year. Apply it at the rate of one pound of active ingredient per acre. And apply it in the furrow or on the seed at planting time.

To further help control this pest, destroy all cull onions. Do not dump them on fields, plow them under or pile them in heaps near onion fields.

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4/10/59

FOR IMMEDIATE RELEASE

Think Ahead About How Accidents Occur

URBANA--Almost everyone has been accidentally injured at some time and in some way. It may have been while working or playing. It may have been by falling, getting cut or hitting a thumb with a hammer.

After an accident happens, we can usually see how it could have been prevented, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

"I got too close to the edge of that drain ditch with the tractor." "I should have used a non-skid pad under that scatter rug." "I had passed that board with the nail several times before and planned to pick it up, but I didn't." It's like so many other hazards that become an unnoticed part of the landscape.

Accidents like these kill around 15,000 farm people in the U. S. each year and injure 1,250,000 others. About 38 farmers a day are killed the year round.

In learning to live safely, we need to remove six faulty beliefs from our thinking. These false ideas are held by many people.

1. Accidents always happen to the other fellow.
2. Accidents happen when my number is up, and not until then.
3. The law of averages says that I will not have an accident.
4. Accidents are the price of progress. Machines cause accidents.
5. Trying to live safely is cowardly. It is "sissy."
6. I know how to live safely.

Accidents do not happen by chance; they happen only when we do an unsafe act or tolerate an unsafe condition.

Modern equipment may have replaced the horse, but not "horse sense!"

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OLH:cm
4/10/59

FOR IMMEDIATE RELEASE

UI Agricultural Research Aids Farmers in Three Main Areas

URBANA--The three key phases of farming--production, processing and marketing--are the three key areas of research conducted at the Illinois Agricultural Experiment Station and the University of Illinois College of Agriculture.

These areas of research, says T. S. Hamilton, associate director of the experiment station, are designed to help Illinois farmers continually improve their farming methods. As a result, the total value of Illinois agricultural products ranks third in the nation.

Illinois also stands first in soybean production, second in corn production, eighth in apple production and near the top in swine production.

The experiment station currently has studies under way in animal production, crop production, farm management and marketing, dairy production, farm machinery and equipment, fruit and vegetable production, insect damage, plant disease, food processing, forestry and home economics. Work in food processing vitally concerns consumers as well as farmers, Hamilton points out.

Some Current Research Work

In animal science, researchers are comparing complete rations for hogs in both meal and pellet form. Corn, wheat, oats and sorghum grains are used in these rations. So far no significant differences between meal and pellet are showing up in the corn-soybean ration. Scientists are not yet sure about the other grains.

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Within the near future, animal science researchers will expand their program in animal breeding. This will be possible through a $200,000 grant from the Moorman Manufacturing Company of Quincy. This grant will enable the University to create needed facilities to concentrate on specialized problems of animal breeding theory and practice.

In plant disease work, experimental wheat plots are showing pathologists from 10 wheat-producing states how susceptible new winter wheat varieties are to soil-borne mosaic. This program gives Illinois workers information on soil-borne mosaic susceptibility for wheat varieties released in other states but grown here, as well as for Illinois-developed winter wheat varieties.

Agronomists are planning fall and spring nitrogen fertilizer application tests at four different locations around the state, reports Hamilton. They are testing various forms of nitrogen to determine whether certain ones leach more than others. Anhydrous ammonia, urea and ammonium nitrate will be included in the study.

Other fertilizer studies indicate that liquid mixed fertilizers are just as good but no better for corn than the same amount of nutrients applied in dry form.

Both agronomists and agricultural engineers are continuing their cooperative study in minimum tillage. This new idea is attracting more and more interest across the Corn Belt.

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Study Factors

Recently the agricultural engineering department received its annual grant from the Illinois Farm Supply Company to study tractor maintenance. Included will be testing of dry-type air cleaners, ways to improve ignition point and intake valve life and ways to get longer and more dependable performance.

Perhaps in the field of farm management lies the work most important to farmers. This work, analyses of farm business records, serves as a guide to farmers in just about every phase of farming.

For example, detailed costs of producing crops and livestock on heavy-till soils of east-central Illinois were compiled last fall. This particular report was only part of detailed cost studies carried out for two-year periods in different parts of the state.

Demand for meat outside the home is an area under investigation by livestock marketing researchers. Their first study area will cover meat use by restaurants. The study includes the kinds and grades of meat and the channel through which it is procured.

These are only a few of the many experimental research projects to help Illinois farmers maintain their outstanding production and quality record.

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4/10/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Dormant Season Best Time to Prune Plants

by Frank W. Owen
University of Illinois Department of Horticulture

URBANA--Home owners who are eager to begin their gardening can begin now by pruning plants that require pruning in the dormant season.

What plants are these? All fruit trees, grapes, brambles, shade trees and woody shrubs except those that are early-blooming. Lilacs and forsythia are two examples of early-blooming shrubs.

Why should these plants be pruned before growth begins? For the following reasons:

1. It's easiest to prune when there is no foliage to hamper vision.

2. No growth sprouts are present now. If pruning is done later, there is danger of knocking off these sprouts and buds.

3. Undesirable wood can be removed now so that, when growth begins, the tree won't have to support such wood. This channels the plant's energy toward supporting only healthy and vigorous wood.

4. Removing diseased wood now lessens the chance that disease will spread when weather conditions are favorable.

5. Gardeners usually have more time for pruning now than later.

Why is pruning necessary? First, pruning fruit trees enhances fruit production. When unnecessary wood is removed, the tree can put more energy into producing better quality fruit. As for deciduous shade trees and shrubs, pruning improves the beauty and shape of the plant and in some cases enhances flower production.

To do a good job of pruning, gardeners will need a pair of hand shears (don't buy the very small pruning shears), a pair of long-handled loppers and a small pruning saw. Make sure that the blades are sharp to insure clean cuts.

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Here are the steps to follow in pruning:

Fruit Trees:

1. Remove dead, broken and diseased wood.

2. Thin out weak wood and sucker growth in the center of the tree. However, do not remove all wood from the center; leave the strongest branches for fruiting.

3. If two branches are rubbing together, causing frictional damage, remove the weaker of the two.

4. Remove about 60 percent of the bushy growth at the ends of the main branches. While pruning this growth, remember that the remaining wood should be spaced as evenly as possible.

5. Reduce the tree height to about 15 feet. Cut the tall branches back to strong side branches that grow laterally to the outside of the tree.

Brambles:

1. Remove all canes that fruited last year.

2. Remove broken, dead and diseased canes.

3. Thin the patch by removing spindly canes (those less than 1/2 inch in diameter) so that the following remain: red raspberries in hill system--3 to 6 healthy canes per hill; red raspberries in hedge-row system--10 canes for every 4 feet of row, or canes spaced 4 to 8 inches apart; black and purple raspberries--4 to 8 healthy canes per hill.

4. Cut back remaining canes so that red raspberry canes are 5 to 6 feet long (if canes are already shorter, remove only winter injured wood at tip). Cut back black raspberry laterals to about 8 to 12 buds, or 6 to 8 inches in length. And cut back purple raspberry laterals to about 14 inches in length.

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5. Prune blackberries by following the purple raspberry instructions with this one exception: thin out to leave vigorous canes spaced about 8 inches apart.

(Editor's Note: The pruning of grapes, shade trees and woody shrubs will be discussed in next week's garden column.)

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3/10/59

THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Hog-tied and hanging from the hook of a spring scale was a still wet, wiggling red-and-white calf weighing 91 pounds. This happened one morning last week--on Monday, March 9, to be exact. As Oakley Robinson, Station herdsman, lowered the new babe to the ground, he commented that it weighed a good 20 to 25 pounds more than most newborn Herefords. Oakley should know, because for the past 16 years he has recorded several thousand birth weights of Station cattle, and this particular 91-pound calf was number 100 in the 1959 calf crop.

Calf catching is an every-morning job during this season. Any morning Oakley and his horse, Captain, may be found on one of the several maternity pastures, either looking for or catching and marking a newborn calf.

Besides getting a weight, Oakley tattoos and dehorns all calves and castrates all grade male calves. In dehorning, he clips the hair from the horn button, roughs the area with a corncob and applies a caustic dehorning fluid. The day we found Oakley weighing the 91-pound calf, he was tattooing number 4,200 into its ear.

Oakley carries on this operation in the open pasture, with the mother cow looking on anxiously and often excitedly. But he welcomes this strong maternal instinct, as it brings the dam in near enough, often within breathing-down-his-shirt-collar distance, to permit him to read her hip brand number. He needs to know this hip brand number so that he can register the new birth in his herd book.

This year Oakley expects about 300 calves, so right now his spring calf-catching duties are about one-third over. But, as in the past, come round-up and weaning time this fall, there will be absolutely no question about the production of each cow in the herd.

The weight and the quality of a calf can positively be blamed on or credited to one particular cow, because today Oakley is making positive identifications.

HAC:bm
4/11/59

farm Radio News

I/ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Cannibalism Can Be Confinement Hog-Feeding Problem

URBANA--A problem swine farmers often have when they raise hogs on a concrete lot is "tail-biting" or cannibalism.

Cause of this trouble is not known, according to G. R. Carlisle, extension livestock specialist at the University of Illinois College of Agriculture. Some producers suspect that overcrowding, shortage of feeder space and lack of exercise may contribute to it.

Hanging rubber tires or innertubes in the pens within reach of the pigs is one simple management practice that some Illinois producers report has helped in their herds.

Other things that have been done include throwing paper feed bags into the pen for the pigs to chew on, throwing tin cans into the pens for the pigs to play with, turning the pigs out into a field so that they can run around for a day, and finding the pig that starts the trouble and taking him away from the herd.

One producer actually tried "docking" tails when pigs are one day old, and he says it works.

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RAJ:cm
4/13/59

FOR IMMEDIATE RELEASE

Vitamin E Important in Animal Nutrition

URBANA--Vitamin E helps to prevent the destruction of such substances as carotene, vitamin A and fats by oxygen.

As a result, vitamin E serves as a natural antioxidant that is needed to preserve these important nutrients in the ration as well as in the tissues, according to H. H. Draper, assistant professor of animal nutrition in the University of Illinois Agricultural Experiment Station.

Some recently developed synthetic antioxidants have been found to be as effective as vitamin E, and cheaper, for preserving such ration ingredients as alfalfa meal and animal fats, Draper says.

The result of this experiment work indicates that most of the symptoms of vitamin E deficiency that may be found in experimental animals probably are due to the role of that vitamin as an antioxidant.

Vitamin E deficiency in chicks can lead to brain lesions that cause extreme nervous symptoms that have suggested the name "crazy chick" disease, Draper said. Under other conditions, a watery fluid collects in the body cavity, heart sac and elsewhere caused by leakage from the blood vessels.

In lambs and calves, vitamin E deficiency causes muscular distrophy, a degeneration of the muscle cells that leads to weakness of the leg muscles as well as damage to the heart. This condition is often referred to as white muscle disease or, in lambs, stiff lamb disease.

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Most farm animals will not develop these symptoms of vitamin E eficiency under practical feeding conditions. But white muscle disease nd crazy chick disease cases are occasionally found in farm animals.

In most cases, stiff lamb disease can be combatted by feeding the ewe high quality hay or whole cereal grains, which are good ources of vitamin E, or by treating the lamb with wheat germ oil. ome outbreaks, however, are resistant to treatment with vitamin E, and t has recently been found that the inorganic element, selenium, is ffective.

Areas of selenium-deficient soils have been found in certain estern states where muscular distrophy is a problem in both cattle nd sheep. Researchers still do not know how many selenium-deficient reas exist in the country or what proportion of the outbreaks of white uscle disease is due to the lack of this element, Draper reported.

Research has already found that the accumulation of fluids n the tissues of chicks, which was formerly attributed to vitamin E eficiency, can also be prevented with selenium.

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(Note to Editors: This story has application only to the southern half of Illinois.)

FOR IMMEDIATE RELEASE

Johnson Grass Threatens; Farmers Show Successful Control

MOUNDS, ILL.--Johnson grass, now pushing through the ground on many farms, again threatens to cut crop yields this year. But two southern Illinois farmers have proved that they can lick Johnson grass and make some money doing it.

Donald Smith and Donald Turner, Cairo, know that controlling Johnson grass can mean many thousands of dollars in extra income from higher crop yields. For in past years this weed has slashed corn yields in the fertile river bottom lands to a few bushels an acre. It has been even more severe on soybeans.

Much of the credit for finding a successful control of Johnson grass should go to a group of farmers in Alexander and Pulaski counties. About four years ago, under the leadership of their farm adviser, Les Broom, they signed a petition asking the University of Illinois College of Agriculture to develop a Johnson grass control program. Fred Slife, agronomist who had specialized in weed control, came to the area and helped to set up research plots to see whether this problem could be solved.

Smith and Turner, who cooperated in these tests, are now thoroughly convinced that Johnson grass control will work. Last year they were able to harvest 39 more bushels of corn an acre where they

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used Dowpon and Eptam treatments. Even though the combined treatment cost $15 an acre, the yield increase more than paid for the treatment. In addition, most of the established Johnson grass was eliminated.

This year Smith and Turner believe that it will be necessary to use only the Eptam treatment, since very little old grass remains in the field. The treatment will cost $3 an acre for a 10-inch banded treatment. They figure they will have to repeat it for four or five years to exhaust the seed supply in the soil.

Slife points out that the first step in controlling solid stands of Johnson grass in cultivated fields is to eliminate the old established plants that have developed extensive rhizomes and underground roots.

One way to do it is to wait until after winter grain harvest and fallow the weedy area. But this operation requires a thorough cultivation every three weeks. In dry summers this practice is highly successful. However, if it rains frequently during the summer, fallowing may only partly control Johnson grass.

The most effective treatment worked out in the research tests has been to use the chemical, Dowpon. The Johnson grass is allowed to grow until it reaches a height of 18 to 24 inches after winter grain harvest. Then a stalk cutter is used to tear up the plants and straw remaining from the grain harvest. As soon as the Johnson grass grows back up to 12 to 18 inches, it is treated with 8 pounds of Dowpon in 30 gallons of water an acre. The treated area is then fall-plowed three or four weeks after treatment. This treatment has given nearly 100 percent control.

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If it is not possible to treat old grass in this way, Slife suggests using Dowpon before planting corn or soybeans. The best plan is to let the Johnson grass grow until it reaches a height of 10 or 12 inches. Then apply 10 pounds of Dowpon an acre in 30 gallons of water. The treated area can be plowed in a week or 10 days, and corn or soybeans can be planted 2 1/2 weeks later. Although this treatment has given over 90 percent kill of old Johnson grass, it has not been quite so successful as the treatment after winter grains during the summer.

Controlling Johnson grass seedlings is the companion step in a successful control program, Slife emphasizes. Seedlings, if permitted to develop, will produce underground roots in four or five weeks and produce a seed crop as early as 70 days after they emerge from the soil.

The research shows that Johnson grass seedlings can be killed completely in corn with three pounds of Eptam an acre put on as a preemergence band application at planting. The band treatment helps to keep the cost down. But this treatment can't be used on soybeans because they are sensitive to this chemical.

Les Broom and the farmers of Pulaski-Alexander counties have also had support from local businessmen. The Cairo Daily Citizen and other newspapers in the area have given wide coverage to the research program. Charles Knote of the Cape Chemical Company at Cape Girardeau, Missouri, donated the chemicals and helped to supervise their application.

Fred Slife, who represented the University of Illinois, sums up the whole experience in this way, "This is a fine example of how a group of farmers working with their farm adviser recognized a problem, set out to accomplish something and produced results that will greatly benefit all farmers who have Johnson grass on their farms."

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FOR RELEASE TUESDAY p.m., April 14, 1959

obert Schwart Appointed to Farm Management Extension Post

URBANA--Robert B. Schwart has been appointed associate professor of farm management at the University of Illinois, Harold G. alcrow, head of the department of agricultural economics, announced oday.

Since 1951, Schwart has been extension economist in farm anagement at Ohio State University. He received the B. S. degree from hat University in 1947, the M. S. in 1949 and the Ph.D in agricultural conomics in 1958.

Schwart is a native of Ohio. He served in the U. S. Navy uring World War II. He is married and has three children. He has ritten numerous articles, circulars and bulletins in the field of farm anagement.

At Illinois, Schwart will work in the field of farm management extension beginning May 1.

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/13/59

FOR RELEASE WEDNESDAY, APRIL 15, 1959

hrinking Profits Force Farmers to Produce Efficiently

URBANA--Shrinking profit margins on Illinois farms are forcing armers to produce more efficiently to hold up their incomes, a Univer- ity of Illinois agricultural economist reported today.

D. F. Wilken cited the records of 210 Illinois farms on which otal farm costs have jumped 33 percent since 1951. During the same ime total gross income remained the same even though prices received or farm products dropped an average of 17 percent.

Farmers have boosted their production efficiency to hold up heir incomes, Wilken explained. Compared with 1951, these farmers veraged 15 percent more milk per cow, 18 percent more eggs per hen, 5 percent more pounds of beef, 25 percent more pork and 34 percent ore corn.

He also reported that ten years ago northern Illinois farmers veraged 65 cents on every dollar of production to pay for their labor, apital and management. During recent years this figure has dropped o about 46 cents. On 120 southern Illinois farms, records show a op in return from 30 cents per dollar of production from 1951-53 to) cents in recent years.

So for every dollar of net earnings a farmer wants for family iving and payment of debts, Wilken estimates that he will need $2 to worth of total net sales. Total net sales are figured by deducting urchased feed and livestock from total receipts.

He cited records from Livingston and Ford counties showing hat about one-fourth of the farms produced less than $10,000 worth of

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oduction and had net earnings of less than $3,000. On the other hand, out one-fourth had a large enough volume of business to achieve rnings of $8,000 or more.

Business volume is the key factor in producing a high standard living for the farm family and supplying the funds to pay off debts. t increasing volume is not the solution for the inefficient farmer, asserted.

Wilken spoke before the Illinois Bankers Agricultural Conference today. The conference is sponsored by the College of Agriculture d the Illinois Bankers Association in cooperation with the Division University Extension.

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13/59

FOR IMMEDIATE RELEASE

Many Careers for Graduates in Agriculture

URBANA--About 15,000 jobs await agricultural college graduates each year. But agricultural colleges in the U. S. are only graduating about half the number of persons needed annually.

Even though actual farming opportunities are decreasing with the advent of fewer but larger farms, the number of jobs available to agricultural graduates is increasing.

So reports Warren Wessels in the current issue of ILLINOIS RESEARCH, the research magazine published quarterly by the Illinois Agricultural Experiment Station. Wessels, assistant to the dean in the University of Illinois College of Agriculture, explains that the 15,000 jobs represent a variety of rewarding and challenging careers.

Although salary ranges are difficult to pinpoint, Wessels cites many Illinois agriculture graduates who take jobs beginning at $350 to $425 a month. The starting wage depends on such factors as amount of training and previous experience. Other important considerations are degree of responsibility, opportunity for advancement and liking for one's work.

Here's a brief description of some of the many agricultural fields:

Agricultural science and research: Researchers work in all phases of agriculture--from developing new products to perfecting new disease control methods. Price and market analysis is another area that holds great promise. Advanced training in agricultural economics is especially helpful for this type of work.

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Agricultural business: The "agri-business" field expands :apidly every year. More people are employed in processing, marketing ınd distributing agricultural products than in actual farm production.

Selling and marketing offer the greatest opportunities in ıgri-business. Manufacturers of feed, fertilizer, machinery, equipment ınd other farm supplies are constantly needing sales and sales manage- ıent personnel. People in sales work have excellent opportunities for ıdvancing to higher management positions.

Services: Public and private agricultural services offer :eal opportunities for those desiring to serve agriculture. The U. S. ;oil Conservation Service and Forestry Service employ large numbers of :ollege-trained personnel. Experienced and well-trained agricultural ;pecialists can work abroad under the auspices of various technical ıid programs.

There are also careers available in livestock and meat in- ;pection, grain inspection and federal and state crop reporting ;ervices.

Agricultural education: For those interested in education, ?ocational agriculture and extension work offer major opportunities. Iore college teachers will be needed as enrollments increase. Many ıgricultural businesses employ people to teach and work with farmers ınd sales personnel.

Farming: As the business of farming becomes more technical ınd complicated, college training becomes more valuable for those who ?ant to farm. Training enables a potentially good farmer to become a ?etter farmer. In addition, it makes him better able to assume leader- ;hip in agriculture. The need for such leadership--in the nation as ?ell as the community--can best be served by those who are farming.

Agricultural journalism: Getting agricultural news and infor- ıation to the public is a rewarding as well as an important job. Journalists with good technical agriculture backgrounds and farm experi- ?nce are in demand by newspapers, farm magazines and trade journals. Radio and television also offer excellent possibilities to people with :he necessary talent.

For more information on agricultural careers, write to Wessels. His address is 104 Mumford Hall, Urbana, Illinois

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1/13/59

FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Lawn Care Guide

by F. F. Weinard
University of Illinois, Department of Horticulture

URBANA--Contrary to some beliefs, you do not have to be an expert to enjoy an excellent green carpet around your house. Anyone can have a good lawn if he is willing to give it year-round attention. Here are seven steps to help you maintain a better lawn:

Roll. There is nothing worse than a lumpy lawn, especially when you have to mow it, or when you want a croquet ball to roll straight. Freezing and thawing during the winter months causes the sod to heave and may leave uneven areas in the lawn. When that happens roll the lawn in the early spring, when the soil is not wet, with about 100 pounds of weight for each foot of roller width. A good time to roll is when bare soil next to the lawn will crumble in your hand. Rolling wet soil causes compaction, which hinders root development and moisture penetration.

Rake. About one week before the first mowing, rake up the dead grass, leaves, twigs and other winter debris. When mowing gets ahead of you, you may also have to rake up the clippings after mowing. If so, let them dry for a day and then rake them. Then rake the leaves once a week in the fall to allow air and light to get to the grass and to prevent them from smothering the grass during the winter.

Mow. A good rule is to mow when the grass is three inches high. Cut it to a height of about 1 1/2 inches.

Fertilize. Apply a nitrogen-carrying fertilizer to your lawn twice a year. Put it on in March or April and again in late August or early September. Use as much as 20 pounds of 10-10-10 or similar analysis per 1,000 square feet. The vigor of

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your lawn will determine the actual amount to use. Very vigorous lawns may need only 12 to 15 pounds, while weaker ones will require 18 to 20 pounds.

Water. Usually lawns need extra water only in July and August. Apply a lot of water every time you water. Soak the soil to a depth of 6 inches; then sit back and relax for about a week before watering again.

Control Weeds. Crabgrass, the villain of all lawns, can be controlled best with a pre-emergence application. Twenty-five pounds of lead arsenate or 12 pounds of calcium arsenate per 1,000 square feet of established lawn area will do the job. There are also many products containing chlordane that you can use. Follow directions on the package for application rates.

Materials like di-sodium methyl arsenate, potassium cyanate, and phenyl mercury acetate will give control after the grass has started to grow (post-emergence). Start applying these materials in June, and repeat according to the manufacturer's directions. Many of these materials are sold under commercial trade names.

Broad-leafed weeds, like dandelion, in the lawn can be controlled with weed killers containing 2,4-D.

Control Insects and Diseases. Grubs, earthworms, webworms, chiggers and ants are often annoying in lawns. To control these pests, apply 10 pounds of lead arsenate and 1/4 pound of actual chlordane per 1,000 square feet of lawn area.

Diseases like brown patch and dollar spot, which often attack bent grass, can be controlled with mercury compounds.

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4/14/59

ILLINOIS FARMERS' OUTLOOK LETTER

FARMERS ARE USING MUCH MORE FEED GRAINS THAN THEY WERE A YEAR AGO

URBANA, ILLINOIS APRIL 15, 1959

CORN. Farmers used and sold corn at a record rate in the January-March quarter. Disappearance of corn from farms totaled 880 million bushels, 12 percent more than the year before and 22 percent more than the 10-year average. Stocks of corn remaining an farms April 1 were estimated by the USDA at 1,816 million bushels, 8 percent more than the year before.

Farmers are using more corn this year than they used in 1958, because they have been feeding more hogs, beef cattle and poultry. The long, cold winter also increased feed requirements. They will continue to use a large amount of corn, because they are still increasing the production of pork, beef and poultry.

At the end of February, 23 percent of the April 1 farm stocks was under price support. A year before, 22 percent was under price support.

OATS. Farmers also used oats at a fast rate in the first quarter of this year. Disappearance from farms was estimated at 365 million bushels in the three-month period. This was 18 percent more than the disappearance last year and 12 percent more than the 10-year average. A special factor favoring large use of oats was their price. Stocks remaining on farms April 1 were estimated by the USDA at 588 million bushels, or 9 percent more than one year before.

BARLEY. Disappearance of barley from farms during January-March totaled 74 million bushels, or 23 percent more than the year before. Stocks remaining on farms were estimated at 151 million bushels, or only 1 percent more than last year. About 61 percent of the farm stocks of barley was under price support compared with 55 percent a year before.

SORGHUM. Disappearance of sorghum grain from farms during the first quarter of this year was less than last year. Principal reason was that the 1958 crop was drier and was harvested earlier, and much more of it already had been moved off farms to warehouses before January 1. Stocks of sorghum grain remaining on farms April 1 were estimated at 102 million bushels, or 5 percent more than a year earlier.

ILLINOIS. Stocks of corn on Illinois farms April 1 were estimated by the USDA at 2 million bushels, practically the same as the year before.

Iowa farmers held 413 million bushels, only 2 1/2 percent more than in 1958. Farmers Nebraska held 189 million bushels, up 25 percent from last year. Southern and eastern states a had more corn this year, because they had a much larger crop to begin with.

Several states reported less corn on farms April 1 this year than they had the year befo Important states with less corn included Wisconsin, Minnesota and South Dakota. Indiana a Missouri had about the same amount as in 1958.

With the exception of Nebraska and Kansas, midwestern states all have less corn on fa in comparison with their livestock numbers than they had a year ago.

L. H. Simerl
Department of Agricultural Econom

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate).

Wet bottoms need a change. And that's what they (bottomlands, that is) getting on the Dixon Springs Experiment Station.

eling and Ditching

Lee Gard, soil and water specialist, has been giving wetland areas on the tion his personal attention. This attention includes ditching to carry off water, eling land to fill low spots and pot holes and building diversion channels around l land to catch and carry away the runoff from the hills before it floods over bottoms.

Poorly drained areas are headaches developed from being stuck with equip- t, dodging low spots and being delayed in planting and harvesting crops. Further- e, crops generally yield less there than on well-drained areas, and the choice of ps that may be grown is limited to such summer annuals as lespedeza, corn and soy- ns. On well-drained areas the choice of crops is wide open, allowing not only corn and beans, but also for permanent or perennial pasture and hay forages and n winter annuals as wheat and other small grains. With this wider choice of crops, is much easier to maintain organic matter needed for better soil tilth and soil e.

ord Kept

Last fall Lee kept a record of man and machine hours required to drain the s bottom. Applying custom rates for the machine used, he found that it cost an acre to do a good job of leveling and ditching. We will hope to recover this in about two years with higher yields. In a five-year rotation before drain- we could expect a gross income of about $190 an acre. After drainage, this area in five years should gross over $300 an acre.

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Every field is an individual problem--some costing more and some costing less than the $41 an acre for draining the Robbs bottom. Some areas may be tiled, but tiling calls for a soil that lets water move through with reasonable ease. Most southern Illinois soils will not allow enough free water movement for tiling; tight subsoils dictate the use of ditches or surface drainage.

Something New

Strawberries, popcorn and sweet corn, crops new to the Station, are to be grown this year. John Wilson Courter, recently employed extension specialist in vegetable crops and small fruits, is going right to work with the planting of 20 strawberry varieties in Superintendent Bob Webb's garden. This garden is one of three tracts to be used for Wilson's variety tests. The other two locations are at Urbana and Carbondale. Wilson also plans a popcorn demonstration plot on the Station.

As for the sweet corn, the Entomology Department of the State Natural History Survey is going to plant this crop to make a survey of insects using sweet corn as their diet.

Feeder Pig Sale

A feeder pig sale will be held at the Station on April 28.

HAC:cm
4/15/59

for dailies

Farm News

/ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

?lan to Creep-Feed Beef Calves

URBANA--Beef calves to be sold at weaning time as feeder or :at slaughter calves probably will benefit from a creep-fed ration dur- ing nursing.

G. R. Carlisle, extension livestock specialist at the Univer- sity of Illinois College of Agriculture, reports that beef calves with access to a creep weighed about 120 pounds more at weaning than similar calves not creep-fed in a test at the University's Dixon Springs Experi- ment Station.

This extra gain cost about 18 cents a pound, Carlisle says. The added "bloom" on the creep-fed calves helps offset any reduction in selling price due to extra weight if they are sold as feeders. The extra bloom is a real advantage if they are sold as fat slaughter calves.

Creep feeding also pays if nursing calves are to be put on a full feed of grain at weaning time.

The only time that Carlisle does not recommend creep-feeding nursing calves is when they are to put put on limited-grain, high- roughage rations after weaning. In that case the extra finish on creep- fed calves will largely be lost while the calves are on the high- roughage feeding program.

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4/16/59

FOR IMMEDIATE RELEASE

John Stanley Returns from IFYE Visit

URBANA--John Stanley, Route 6, Paris, returned to Washington, D. C., this week after living and working with rural families for six months in the Dominican Republic under the International Farm Youth Exchange program.

Stanley is one of 22 U. S. IFYE delegates who will spend four days in the nation's capital evaluating their experiences abroad. This final consultation program, arranged by the National 4-H Club Foundation, will include visits with officials of the Departments of Agriculture and State and the embassies of their host countries and the IFYE staff of the Foundation.

Countries that served as hosts to the young people are Argentina, Australia, Brazil, Chile, Colombia, Dominican Republic, Mexico, New Zealand, Panama and Peru. The delegates represent 15 states.

Since the program began in 1948, 1,010 U. S. delegates have gone abroad and 1,179 exchangees have come from other countries to the United States. During 1958 the program included a total of 116 U. S. delegates from 36 states and 147 exchangees from 44 countries. This year exchanges with 40 countries are planned.

The International Farm Youth Exchange, a people-to-people program, is conducted in the United States by the National 4-H Club Foundation and the Cooperative Extension Service. It is financed by voluntary contributions of 4-H Clubs, civic and rural groups, business concerns, individuals, foundations and others interested in better world understanding. Stanley's visit to the Dominican Republic was made possible through a scholarship given by the Olin Mathieson Chemical Corporation to the National 4-H Club Foundation.

When he returns home, John will devote several months to reporting his experiences. Groups interested in having him tell about his stay in the Dominican Republic should contact either Edgar County Farm Adviser D. L. Doerr or Edgar County Home Adviser Laura Heddleson at Paris.

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FOR IMMEDIATE RELEASE

'eeding Extra Protein Does Not Affect Caked Udder

URBANA--Feeding high levels of protein before and after calv-
.ng does not prevent caked udder troubles.

Previous research has shown that the blood protein falls to
. low level at calving time because of the demands for protein to make
:olostrum. This drop is more critical in heifers, since they start
'ith a lower blood protein level than older cows. And heifers normally
.ave more trouble with caked udders at calving time than older cows do.

In the latest Illinois Research magazine issued by the Illi-
.ois Agricultural Experiment Station, R. L. Hays and B. L. Larson report
hat they tested the idea that low blood protein might cause caked
.dder.

The scientsits injected cow blood serum albumin directly in-
.o the blood streams of several heifers that had caked udders. This
njection raised their blood protein level, and the caked udder troubles
.isappeared almost entirely in 24 hours.

Because of the high cost of such injections, Hays and Larson
ed high levels of protein just before and after calving trying to raise
lood protein levels. Starting six weeks before calving, they fed six
ounds of soybean oil meal daily in addition to good-quality hay to 12
olstein, Jersey and Ayrshire heifers.

This heavy feed of protein did not increase blood protein
evels of these heifers or reduce the number of caked udder cases. How-
ver, none of the heifers fed the high-protein ration had severe cases.
n the other hand, the high-protein ration did not increase the severity
f caked udder, as is believed by some dairymen.

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FOR IMMEDIATE RELEASE

d Fertilizer to Maintain Profitable Production

URBANA--Even though Illinois soils are some of the most urally productive in the world, supplemental fertilizer is necessary maintain profitable farming, according to S. R. Aldrich, University Illinois agronomist.

He points out that Illinois farmers are now using about four es as much nitrogen and almost twice as much soluble phosphate and ash as they did in 1950. They are using 15 times as much fertilizer they did in 1940. Unless weather interferes, he expects farmers to ther increase their use of these fertilizers again this year.

Fertilizer remains favorably priced among all farm costs, rich says. During the last 10 years, fertilizer costs have remained ost steady, while power and machinery costs, land values and wage es have climbed higher.

Soils tests remain one of the basic tools for choosing ferti- er treatments with greatest precision for an individual field, Al- h emphasizes. Illinois farmers are testing as many samples each as any other state has tested in the past 10 years.

Research on the Morrow Plots on the University of Illinois pus shows that careful farmers who have nearly level, medium-textured ls can maintain high yields in an intensive corn farming system if fertilize liberally, Aldrich concludes.

Aldrich spoke before the Illinois Bankers Agricultural Con- ence on the University of Illinois campus this past week. The con- ence was sponsored by the College of Agriculture and the Illinois kers Association in cooperation with the Division of University Ex- sion.

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farm Radio News

ERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR RELEASE TUESDAY, APRIL 21, 1959

torage Space for Government Corn Appears Adequate

URBANA--Storage space for the take-over of 1958 corn now under oan on Illinois farms should be adequate, an official of the Illinois SC committee said today.

Speaking before the Grain Dealers Management Conference meeting on the University of Illinois campus, Glenn Fisher reported that no ounty in Illinois would have a shortage of storage space if grain warehousemen complete their current building plans.

Capacity of CCC-owned bins in Illinois totals 184.7 million ushels, Fisher stated. Last fall after CCC took over 1957 loan corn, 55.2 million bushels of this storage space was filled.

In mid-March ASC officials were expecting a shortage of storge space for government grain that might have been as high as 30 million bushels on August 1. However, CCC has given orders to move 5½ illion bushels out of bin sites. About 3.6 million bushels of corn ill be sold as off-grade corn.

With the rise in the corn market, most low loan corn will be old on the market. So the amount of corn the CCC has to take over

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/ill be about 7 million bushels less than was expected earlier. Grain lealers have also announced plans to build another 22.4 million bushels)f storage space this year.

Fisher reported that since 1956 Illinois public warehousemen ıave increased their storage space to handle government-owned grain :rom 23.8 million to 114 million bushels in February this year.

Assuming that this privately owned storage space remains :illed for a full year, it will earn storage fees of over $18 million, ıot counting elevation and load-out fees, Fisher stated.

He urged any grain warehouseman who is planning to build more :torage to review the space needs in his area by consulting with local ıSC officials. The day is over when a grain warehouseman can build .arger storage space than is needed in his immediate area. Almost :very grain dealer is now in the storage business, and many are plan- ıing expansion, he concluded.

The Grain Dealers Conference was arranged and conducted by :he Department of Agricultural Economics in cooperation with the Illi- ıois Grain Dealers Association, the Farmers Grain Dealers Association ınd the Division of University Extension.

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FOR IMMEDIATE RELEASE

Concentrated and Fresh Milk Taste Almost the Same

URBANA--Taste tests have again shown that it is hard to tell any difference between newly developed concentrated milks and milk fresh from the dairy. This time the tests were made at the University of Illinois Farm and Home Festival early this month.

About 4,100 festival visitors drank more than 700 pounds of concentrated and regular milk in three days of testing both fresh milk and sterile concentrated milk.

Fifty percent of the visitors comparing fresh concentrate with regular milk and 40 percent comparing sterile concentrate with fresh milk either guessed wrong or said they couldn't tell which milk was which, according to Robert Jacobson, UI milk marketing specialist in charge of the exhibit.

Over 55 percent of the visitors who liked fresh concentrate said they would buy it at regular milk prices. However, once on the national market, these new milk forms will cost less than regular milk in most areas.

Jacobson says Midwest manufacturers could ship fresh concentrated milk at least 1,000 miles and sell it at 6.2 cents a quart less than whole milk in the South, 5.6 cents less in the Northeast and 3.9 cents less in the West. In the Midwest, fresh concentrate will cost about the same as regular milk.

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Manufacturers make fresh concentrated milk by removing two-
lirds of the water from Grade A whole milk. They package it in one-
lird-quart paper cartons, and each carton makes a full quart of milk
en reconstituted. Refrigerated fresh concentrated milk will stay
esh for as long as 14 days.

Newly developed sterile concentrated milk is also made by
moving water from milk. However, it needs no refrigeration. The
erile milk used in the UI tests had been safely stored for five
nths at room temperature.

Present trade barriers are the main obstacle to wide-scale
e of concentrated milk. Jacobson believes these barriers will dis-
pear within the next few years, although one or two Supreme Court
cisions may be necessary first.

Concentrated milk's success in areas where consumers now buy
indicates that, once trade barriers are lifted, the new milk forms
ll become highly popular with the American public.

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FOR A.M. RELEASE WEDNESDAY, APRIL 22, 1959

Don't Expect More Foreign Trade, Grain Conference Told

URBANA--The United States may not stand much chance of increasing foreign agricultural trade except in occasional flurries.

Stanley Andrews, who gained wide experience in foreign agricultural affairs as a former Point IV program administrator, told a Grain Dealers' Management Conference on the University of Illinois campus Tuesday that in his opinion the United States can't "market or dump its way out" of the agricultural surplus problem. Andrews is now executive director of the National Project in Agricultural Communications at East Lansing, Michigan.

Andrews referred to the agricultural problem as one of "overproduction and failure to adjust our production to the needs of the market, with loss of net income to the agricultural industry in this country." He added that the problem has existed for the past 20 years without much change.

Calling for a broad interpretation of agricultural policy, Andrews referred to the "market" as both domestic and foreign.

"Whether anyone realizes it or not," Andrews said, "United States agricultural policy is just as much a part of the country's foreign policy as the tariff acts or the military forces." From the farmer's standpoint, he said this means that what happens outside the individual farm may affect income as much as or more than what the farmer himself does.

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"As producers of agricultural products, U. S. farmers are first concerned with doing a good job of production," Andrews said. "The common approach is to first produce and then look for a market."

Andrews then pointed out that the agricultural market is one of the most inflexible of all markets because the human stomach can take only a certain amount of food in a day. But the agricultural market is also one of the most consistent and stable markets, since people must have food to survive.

"When surpluses begin to pile up, the United States always blames the surplus problem on declining foreign agricultural markets," Andrews said. He added that the real problem might be an inability to "face up to the realities of the world situation and consider the problems of rural peoples of other lands."

Considering the world situation, Andrews said that in his opinion the United States already has more than its share of the total world agricultural trade. Justifying the surplus disposal program under Public Law 480, he said the original idea was to give underdeveloped countries a chance to develop their own resources for a return to more normal market conditions.

"Public Law 480 has worked in some cases, notably in India," Andrews said. "But in other cases the United States has come to regard the 480 program as another place to dump surpluses." Although he did not suggest dropping the 480 program, Andrews warned that the plan might lose the United States more friends than it gains if the original objectives are ignored.

"American agriculture as a segment of U. S. foreign policy is a vital part of the present world struggle," Andrews said. "If the United States hopes to strengthen rather than hinder action policies for agriculture nationally and internationally, agricultural policy must be geared to and consistent with stated foreign policy aims."

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4/20/59

FOR IMMEDIATE RELEASE

Feed Additives Put on Faster and Cheaper Gains

URBANA--Nutrition history may some day refer to the late 1940's and early 1950's as the start of the "era of feed additives."

Researchers have successfully added hormones, chemicals and pharmaceuticals to cattle rations to get faster and cheaper gains. More than two thirds of all fattening cattle now get hormones, according to W. W. Albert, animal scientist at the University of Illinois.

Tests show that stilbestrol and synovex, the two commonly used hormones, increase daily gains about 15 percent and improve feed efficiency about 15 percent, Albert says.

Antibiotics like aureomycin or terramycin at 70 to 80 milligrams per head per day have increased gains on roughage rations about 10 percent. Levels up to 500 milligrams a day help to cut shipping fever losses.

Urea is a satisfactory source of as much as one-third of the nitrogen in fattening rations. It is less satisfactory for growing rations. Liquid molasses supplements have been no better than oil meals.

Results of a 68-day Illinois finishing test failed to show any response from feeding the tranquilizer hydroxyzine. Albert reports that tranquilizers do promise to reduce shipping shrink.

Dynafac has shown negative results in Illinois tests, although some states report favorable results. Tapazole apparently stimulates gain early in the feeding period but causes a later decline.

Other compounds, including dried rumen additives, brewers' yeast, fish solubles and dried molasses, have shown little or no response. Enzyme additives are in the testing stage.

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FOR IMMEDIATE RELEASE

t Sheep Dog Trials for Sheep Day at Dixon Springs

URBANA--Sheep dog trials will be an added feature of this ar's annual Family Field Day of the Illinois Purebred Sheep Breeders' sociation on Sunday, June 7, at the Dixon Springs Experiment Station Pope county.

Sponsored by the North American Sheep Dog Association, these als will be directed by Arthur Allen, nationally known sheep dog iner and handler from McLeansboro. The trials will start early and finished by 11:30 a.m.

Traditional family picnic lunch will follow the sheep dog als, according to U. S. Garrigus, head of the sheep division in the versity of Illinois College of Agriculture and secretary-treasurer the Purebred Sheep Breeders' Association.

In the afternoon picnic guests will tour the Dixon Springs tion, where they will see research experiments in crops, livestock forestry. The Station has a nation-wide reputation for its studies a system of agriculture best suited to the area of the Ozark uplift southern Illinois.

Garrigus invites all persons who are interested in sheep and ep dogs or in seeing the Dixon Springs Station to attend. Motel ac- modations are available on Route 45 at Harrisburg, Vienna or Metropo- . The Station is located on Illinois Route 145, 25 miles south of risburg and 25 miles north of Paducah, Kentucky.

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FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Strawberries in the Home Garden

by Chester Zych
University of Illinois Department of Horticulture

URBANA--Strawberries are one of the tastiest fruits that can be grown in home gardens. Because they're rich in vitamin C, they are valuable in the diet. In fact, 20 to 30 strawberries will supply the entire daily requirement for vitamin C.

Raising good strawberries begins with site selection. Strawberry beds should have good air and water drainage, with no danger of frost pockets. In northern and central Illinois, a north or northeast slope is best because it helps prevent too early blossoming.

The soil should be at least moderately fertile, easily pulverized and high in organic matter. Soil texture is usually better if a clean-cultivated or heavy cover crop precedes the berry plants. It's also a good idea to spade or plow the soil in the fall or early spring before the plants are set. This helps to improve the physical condition of the soil.

Before planting in the spring, work well-rotted manure into the soil. Use about 1/2 bushel for each square yard. Non-decomposed material should have been worked in last fall.

If manure is not available, use a complete fertilizer such as a 10-10-10 analysis. The recommended rate is about three pounds for every 100 feet of row. Apply in a six-inch strip and work into the top six inches of soil. Two weeks after setting the plants, side-dress with two to three pounds of a 10-6-4 fertilizer for every 100 feet of row.

Selecting a variety or varieties may present a problem because there are so many. And one variety may grow well for your neighbor but fail completely in

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your garden. The best policy is to buy, from reliable nurserymen, healthy, true-to-name varieties that are adapted to Illinois.

Premier is a good early ripening and frost-resistant variety. Dunlap and Vermilion are somewhat higher in quality and ripen several days after Premier. Catskill, a productive, good-quality variety, ripens in mid-season. Tennessee Beauty is a good, late-maturing variety. All of these varieties are satisfactory for eating fresh, for canning and for quick-freezing.

Set plants as soon as the ground can be worked. Space rows about three feet apart for hand cultivation. Plants should be 18 to 24 inches apart in the row. To set plants, work a trowel or spade back and forth to make V-shaped holes. Place the plants in these holes with the roots spread out fan-shaped and the crowns slightly above ground level. Then press the soil firmly against the roots to fill in air pockets. Remove the largest leaves at planting time. Also pinch off any blossoms that appear during the first growing season.

Frequent but shallow cultivation is needed throughout the growing season. Cultivation controls weeds and keeps the soil loose for easier establishment of runners.

When runners appear, place the first ones along the row so that they'll root and form a mat 20 to 24 inches wide. Individual plants will root six to nine inches apart. Encourage rooting by putting loose soil on the runners to hold them in place. As soon as the row is sufficiently filled, cut out the excess runners to prevent crowding and poor growth of the first-rooted runners.

Watering the strawberry patch during drouth periods will help to form better runner plants the first year. And after renovation the second year, watering will increase the quality of berries.

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For spraying and dusting information, write to the Department of Horticul-ure, Mumford Hall, Urbana, for a copy of Fruit Leaflet No. 1.

Home gardeners with established strawberry beds should remove winter mulch-g as soon as new leaf growth begins in the spring. Shake up the mulch and remove me that is directly over the plants to the middle of the row. Let the plants grow through the rest. If frost threatens, cover them temporarily.

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ILLINOIS FARMERS' OUTLOOK LETTER

CATTLE ON FEED UP 8 PERCENT IN YEAR

Numbers in Corn Belt Up Only 4 Percent

URBANA, ILLINOIS APRIL 22, 1959

The cattle feeding situation is developing about as was expected earlier. Farmers in nine north-central states were feeding 4 percent more cattle on April 1 than they were feeding a year before. But farmers in the five important western feeding states were feeding 23 percent more. The 13-state total was up 8 percent over last year. Thus marketings of fed cattle apparently will be a little larger during the remainder of this year than they were in the same months last year.

The number of cattle and calves on feed by areas was as follows: nine north-central states, 4,262,000; five western states, 1,096,000; and total of 21 states reporting, 5,854,000.

Most of the increase in numbers on feed consist of cattle that were placed on feed from October 1 to the last of December. The numbers on feed for different lengths of time in the 13 states were as follows: less than three months, 2,160,000 head, up 6 percent from the year before; three to six months, 2,886,000, up 10 percent; and over six months, 196,000 head, down 5 percent.

Cattle feeders in the 13 states reported that they intended to market 13 percent of their cattle in April, 16 percent in May, 16 percent in June and 55 percent after June. This marketing pattern would be about the same as was followed last year. It would, however, bring 8 percent more cattle to market than in the previous year.

The number of cattle placed on feed in the 13 states was 4 percent larger in the January-March quarter than the year before. Most of this increase was in California.

Recent prices for cattle almost exactly duplicated year-before figures. Last year prices of Choice steers slid off from around $30 in March and early April to $26 in August.

Consumer buying power is greater now than it was a year ago, but it is not likely to increase any more this summer than it did in 1958. On the other hand, the supply of beef may increase more than it did last year.

This year began with beef output about 7 percent below that of a year before. February and March output was about equal to year-before levels. April production seems to be running a little

ahead. Reports of cattle on feed, and of range conditions, suggest that the supply of beef will moderately larger during most of the remaining months of this year than it was last year.

Shipments of stocker and feeder cattle from ten markets during January-March totaled 432,0 head, 17 percent more than the year before. Shipments of steers numbered 260,000 head, up 14 p cent; calves, 116,000 head, up 21 percent; heifers, 46,000, up 40 percent; and cows 10,000, 25 percent.

Receipts of stocker and feeder cattle and calves in nine corn-belt states during January-Ma totaled over one million head, up one-fifth from corresponding year-before figures. (These to receipts include cattle obtained direct as well as those bought at public markets.)

From information now available, it appears likely that more fed cattle will be marketed d ing the rest of this year than in 1958, that their average weight will be heavier, and that there w be a larger slaughter of cull cows and other nonfed cattle.

L. H. Simerl
Department of Agricultural Econom

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Less than nine months ago an experimental machine was operating in the hay fields of the Dixon Springs Experiment Station, pounding out wafers. The wafers were flat and round measuring four inches across and about one inch thick. The raw material going into the machine was field-cured mixed clover and grass hay. As the hay popped out of the four-inch tube into a trailing wagon, it was tightly packed with two to three times the density of baled hay--but otherwise unchanged. Each string or strand of forage could be uncoiled its full length from the solid wafer.

Threat to Baler

Considering only the advantages of handling, storing, and shipping--particularly shipping because of reduced bulk--the still experimental wafering machine poses as a real threat to the baler as king of the hay fields. But, how do wafers feed?

Heifer calves weighing about 475 pounds have a mouth size that matches the rest of them. For most feeds, we think that their mouth is big enough. But, how would the calves handle a real big bite of a four-inch wafer? We had no cause to worry. These calves handled the wafers well, chewing them over and eventually breaking the wafers down to a smaller size or eventually unpacking the wafer to a tangled mass of more or less loose hay. Observations led us to believe that the calves rather enjoyed their chewing exercise. They sought out and worked over wafers in the bunk before cleaning up any loose or flaked hay.

Heifers Gain Well

Heifer gains on the wafered hay--no other feed was fed--were not exceptional, but satisfactory. In a winter test, the wafered hay produced daily gains of about 3/4 of a pound a day while baled hay produced about 1/3 of a pound daily

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gain. Both wafers and baled hay were fed at the rate of slightly more than 11 pounds a day to each calf. Eleven pounds was the amount put into the bunks but observation led us to believe that waste was less for the wafered hay, meaning that the amount of hay that reached the paunch of the calves as wafers was probably greater. We have no way of measuring exact consumption--but the observation of less waste plus the higher gains lead us to believe that wafer consumption was better.

Pellets Still Best

Pelleted hay is still king over wafers and baled hay. Hay similar to that fed as wafers and as bales was ground and pelleted. This product produced average daily gains of about 1 1/2 pounds with the average daily consumption up to more than 16 pounds. It took only 1,100 pounds of pelleted hay to make 100 pounds of calf gain. About 1,600 pounds of wafers were needed to give the same gain while calves on the baled hay needed about 3,600 pounds of hay for each 100 pounds of gain. Now--if we only had a cheaper way to pellet hay.

Dates

The wool pool will be held at the Dixon Springs Experiment Station during the week of May 25. Wool will be received on May 25.

The Illinois Purebred Sheep Producers Association will hold their annual field day and picnic on Sunday, June 7 at the Dixon Springs Experiment Station.

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for dailies

Farm News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

ndustry May Use Home Agricultural Surpluses

URBANA--Research into greater industrial uses for farm products is one key to breaking down giant agricultural surpluses.

However, it is wishful thinking to believe that research tarted now can find new economic uses for grain presently stored under overnment loan, says R. T. Milner, head of the University of Illinois epartment of Food Technology.

In the past, highly publicized "myths" concerning possible ndustrial farm product uses have received much public attention, only o fall through when actually tested. Early dreams of soybean plastics nd power alcohol, for example, have not materialized and no longer seem conomically possible, Milner points out.

Some other new ideas for industrial use of farm products promise better results. Large acreages of newly developed high amylose orn, which compares in yield with present good hybrids, may soon be rown especially for industrial use.

High-amylose starch makes strong, flexible, transparent films imilar to cellophane. The films are grease-resistant, edible and water-oluble. And they can be made water-resistant.

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Ordinary cornstarch and its derivatives show promise for in-
ustrial uses also. Milner estimates that in the future starch from as
ich as 100 million bushels of corn a year may be used economically in
:e purification and other metallurgical uses alone.

Cornstarch may also find use in making paper, and combined
ith cotton fiber it may some day make clothing so cheap that homemakers
ill throw it away instead of washing it.

Competition between farm products and synthetic products for
:esent markets is becoming keener each year. New crease-resistant
id wrinkle-proof cotton fabrics seem to offer advantages over syn-
ietics. And tire cords made of improved cotton may soon be a reality.

If this encouraging trend is to continue, it will be necessary
) give further financial aid to agricultural research to maintain a
)nsistent research program, Milner explains.

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FOR IMMEDIATE RELEASE

Take Careful Look at Corn and Soybean Planting Plans

URBANA--Two University of Illinois Agricultural economists urge farmers to take a careful look at their corn and soybean planting plans. Here is how W. N. Thompson and T. A. Hieronymus size up this year's situation.

On March 1, farmers indicated that they would plant 12 percent more corn and 7 percent soybeans. If they follow these intentions and get average yields, corn prices will not go above the $1.12 support rate.

Soybean production may be less this year than will be used in the year following harvest. But a large carry-over expected from the 1958 crop will keep prices from rising very far if the Commodity Credit Corporation decides to sell its stocks.

In Illinois, soybean price supports will range from about $1.91 to $1.93. Corn price supports will be close to the $1.12 national average. Soybean prices have a much better chance to rise above the loan than corn. If unfavorable weather should cause a short crop, soybean prices are much more likely to show a strong price rise than corn.

If a farm operator wants to figure out his best choice of corn and soybean acreage, the economists suggest that he take the expected yield of corn or soybeans and multiply it by the support price of $1.12 for corn and $1.92 for soybeans. If he wants to be a little more optimistic, he might use $2.00 for soybeans.

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But even though corn will probably show a larger gross income per acre, this doesn't tell the whole story. Crop expenses run about $3.00 an acre higher for corn than soybeans. More labor is required and fertilizer costs are usually higher for corn. Corn yields are often harder hit by drouth.

If corn yields on a farm usually run about three times as high as soybean yields, a farmer would be justified in shifting to more corn. If the ratio is nearer to the state average of 2.4 or lower, he would be more justified in holding acreage about the same or shifting to more soybeans, Thompson and Hieronymus point out.

For example, a farm that can produce 90 bushels of corn and only 30 bushels of beans an acre would be better off to shift to a little more corn. But if the farm usually produces about 60-bushel corn and 30-bushel bean yields, this farmer could soundly shift to a few more soybeans.

But each farmer faces certain conditions on his farm that must not be overlooked. Storage space, available machinery, labor at planting and harvest and the crops previously grown on the field must all be considered.

Looking at the farm production situation as a whole, the economists point out that corn is in more surplus trouble than soybeans. If there is not much difference to be gained in growing one over the other, the farmer would help the over-all situation by planting soybeans.

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4/23/59

FOR IMMEDIATE RELEASE

Planned Herd Health Program Raises Production

URBANA--A planned herd health program recently looked like the answer to the problem of Hubert Stoll, Chestnut dairyman.

Stoll's problem was to raise the breeding efficiency of his dairy herd. His cows had an average calving interval of 16 months. This had to be lowered to about 13 months or his herd would continue to yield a low net income.

Stoll's herd production average was 12,061 pounds of milk and 424 pounds of butterfat in 1956. Lowered breeding efficiency dropped the average to 10,383 pounds of milk and 395 pounds of butterfat in 1957.

But in 1957 Stoll followed a planned herd health program that helped raise the efficiency of his herd. In 1958 the average production rose to 13,129 pounds of milk and 490 pounds of butterfat.

Here is how Stoll went about producing an average increase of 2,746 pounds of milk and 95 pounds of butterfat in one year. First, he contacted his local veterinarian, who helped him work out a satisfactory herd health plan.

This program calls for a veterinarian to visit the farm every month. At this time all cows that have calved 20 to 45 days previously are examined for any reproductive abnormalities.

The reproductive tract is carefully examined if the cow has had twins, had difficulty in calving, or did not clean naturally. At this time treatment is given to reduce the likelihood of low-grade uterine infections.

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Cows that show slight heat indications three months or more after being bred are examined for pregnancy. Cows returning for the third breeding service are examined prior to service.

The herd health program includes the prevention and control of mastitis. Udders of lactating cows are examined periodically for evidence of mastitis. The California mastitis test is used three times a year on milk samples to aid in finding early stages of diseases. This indirect test, plus laboratory culture examination, enables the veterinarian to assess the value of treatment. Best results from treatment have been obtained during the cow's dry period.

Calf health and development have been improved by moving their shelter and pens to a clean area. Calfhood vaccination for brucellosis is also part of the program.

What does the herd health program cost? For the monthly visits, special calls, mastitis tests and treatment, medical supplies and mineral mix, the entire veterinary service for the herd averages $2.00 per cow per month.

Stoll believes the formula for his successful dairy operation is a planned herd health program, use of better sires through artificial breeding and careful attention to proper feeding and management practices.

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FOR IMMEDIATE RELEASE

Resume Release of Vegetable Situation Bulletin

URBANA--Agricultural extension specialists at the University of Illinois have resumed releasing a report describing the vegetable situation in Illinois.

Entitled the "Bulletin on the Illinois Vegetable Situation," the report is prepared every week during the growing season. Cooperating with the UI in its preparation are the Illinois Natural History Survey, Southern Illinois University and other organizations.

The bulletin is designed to keep the commercial vegetable grower informed of diseases and insects threatening his crops. It also lists meetings of interest to growers, timely production tips and similar information.

Any interested person may subscribe to the bulletin. To do so, send your name and address to Bulletin, 208 Vegetable Crops Building, University of Illinois, Urbana. The cost is $2.00; make checks payable to the University of Illinois. (Members of the Illinois State Vegetable Growers Association have their subscriptions paid by the Association.)

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

May - June, 1959

May 3	National Rural Life and 4-H Sunday
May 11	Twilight Orchard Meeting, Jersey and Calhoun County Area. To be held at Nugent-Schpanski Orchards, Grafton, 3:00 p.m. Supper will be served.
May 11-15	Leisurecraft and Counseling Conference. 4-H Memorial Camp, Monticello.
May 12	Agronomy Experiment Station Field Day. Brownstown, Fayette County. 10:00 a.m.
May 21-22	Conference of Production Credit Association Fieldmen. Urbana.
May 26	Agronomy Experiment Station Field Day. Enfield, White County. 1:30 p.m.
May 27	Agronomy Experiment Station Field Day. Raleigh, Saline County. 1:30 p.m.
May 28	Agronomy Experiment Station Field Day. Ewing, Franklin County. 1:30 p.m.
June 7-11	Illinois Home Bureau Federation Citizenship Conference. University of Illinois, Urbana.
June 9	Agronomy Experiment Station Field Day. West Salem, Edwards County. 1:30 p.m.
June 10	Agronomy Experiment Station Field Day. Newton, Jasper County. 1:30 p.m.
June 10	Illinois Horticultural Society Summer Tour. Eckert Orchard Association, Trobaugh Homestead, Carbondale.
June 12	Agronomy Experiment Station Field Day. Carlinville, Macoupin County. 1:30 p.m.
June 14-17	American Dairy Science Association Annual Meeting. University of Illinois, Urbana.
June 16	Agronomy Experiment Station Field Day. Minonk, Woodford County. 1:30 p.m.
June 16-18	State F.F.A. Convention. Springfield.
June 23	State F.F.A. Judging Contests. University of Illinois, Urbana.
June 24	Annual University of Illinois Agronomy Day. Urbana.
June 29-30	Fertilizer Industry Conference. University of Illinois, Urbana.
June 30	Annual Meeting of Illinois Crop Improvement Association. University of Illinois, Urbana.

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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Corn Storage Costs More Than Expected Market Rise

URBANA--A University of Illinois agricultural economist points out that the cost of storing corn from now through the summer will probably exceed any price rise that may take place.

Max R. Langham has calculated that shrink, insurance, rodent and insect damage, and interest costs from mid-April to mid-May will add up to about 2.5 cents a bushel; to mid-June, 4.2 cents; to mid-July, 5.6 cents; to mid-August, 7 cents; and to mid-September, 8.4 cents. These costs do not include depreciation or other building costs.

Langham doubts whether the price rise during the rest of this crop year will be enough to cover the out-of-pocket costs of storing ear corn. Surplus government feed grain stocks will probably prevent any substantial rise in corn prices. Farmers storing corn that they plan to sell on the open market may find themselves competing with government sales of non-storable corn.

Langham points out that April and May are critical months in corn storage. Usually during this time corn dries down to 15.5 percent moisture. Corn drier than this is not recognized in our present moisture discount schedule. Unless premiums are received for corn below 15.5 percent, any further moisture loss results in a weight loss that is strictly a cost of storing corn. Shrinkage cost alone amounts to about 1/2 cent a bushel a month from May to September.

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4/27/59

FOR IMMEDIATE RELEASE

Girl From Peru to Visit on Stark County Farm

URBANA--Miss Amanda Morey, 21, Pucallpa, Peru, South America, is visiting on the farm of Mr. and Mrs. Marion Brucker, Wyoming, Stark county, as the first International Farm Youth Exchangee in the state this year.

One of seven children in her family, Miss Morey now works as assistant city registrar in Pucallpa. For 10 years she lived on a 25-acre farm that produced corn, rice, beans, yucca and coffee. Her trip is sponsored by the Agricultural Extension Service of Peru. From the Brucker's farm she will move to another Illinois farm on May 22.

She is the first of 12 foreign farm young people who are expected to live and work on Illinois farms as part of the IFYE program this summer.

Last year 15 exchangees from 12 foreign countries lived with an average of four Illinois farm families during their two-month stay in this state. These exchangees lived with 54 host families in 35 different Illinois counties.

In addition to living and working on the farms, these exchangees also kept busy experiencing the American way of life by attending picnics, fairs, shows, family dinners and social events. They spoke to groups when asked about their native lands and made a total of 469 different talks to 25,376 persons.

Janet Bateman of Mansfield, Piatt county, has already arrived in England and Wales for a six-month stay. Norman Virden, Ramsey, Fayette county; Donald Wesoloski, Wilmington, Will county; and John Revell, Tolono, Champaign county, all will leave in October for their respective countries. Virden will go to Chile, Wesoloski to Pakistan, and Revell to New Zealand, These four are the Illinois IFYE delegation for 1959.

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4/28/59

FOR IMMEDIATE RELEASE

No Danger As Yet From Strontium-90 in Milk

URBANA--Don't stop drinking milk because you are afraid of getting too much strontium-90 in your diet.

Extensive and continuous testing by U. S. Public Health Service officials and other scientists shows that amounts of strontium-90 present in the nation's milk supply is far below permissible lifetime levels, reports Bruce Larson, dairy scientist at the University of Illinois College of Agriculture.

Current public concern about amounts of strontium-90 in milk are understandable, Larson says. Americans get more than 80 percent of their dietary calcium from milk. But the truth of the matter is that we can be thankful we get our calcium from milk instead of from cereals and vegetables.

People in Japan, for instance, get only 18 percent of their dietary calcium from milk products and 75 percent from cereals, chiefly rice, and vegetables. On the basis of the 1956 rice crop, the Japanese diet contained more than 10 times as much strontium-90 per unit of calcium as did the public diet in this country.

For this reason, it is apparent that if the U. S. public, through ignorance or misinformation, shifted from milk to cereals or vegetables for their dietary calcium needs, they would be increasing the relative level of strontium-90 in their diets, Larson points out.

Actually, scientists do not yet know enough about the dangers of long-term, low-level exposure to radioactive materials, the dairy scientist says. They know much more about the effects of large doses

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of radiation on humans resulting, presumably, from exposure to or fall-out from the blast of an atomic bomb.

Several biologically active radioactive elements are formed in an atomic explosion. However, most of these either soon decompose to harmless elements or are quickly eliminated from the bodies of animals or humans if eaten along with foods.

Most potentially dangerous of these atomic blast elements is strontium-90 which falls slowly from the atmosphere and spreads over long distances in fall-out. It takes a long time to decompose to a harmless element, and it is absorbed from foods by man and animals and becomes deposited in their bones where it may exert harmful effects as it decomposes.

This deposition in the bone is the most potentially dangerous thing about strontium-90, Larson says. It happens because strontium-90 is so similar chemically to calcium and follows it in the food chain from soil to body.

Fortunately, several natural places in this chain discriminate against strontium-90 and take calcium instead, if it is available. These sites of discrimination include the root tips of plants and the intestinal tracts, kidneys, placenta and mammary glands of both animals and man.

Milk contains less strontium-90 per unit of calcium than do cereal grains, vegetables and meats because of these discrimination sites operating during milk formation. Some plant sources of calcium may contain up to 10 times more strontium-90 per unit of calcium than does milk, Larson points out.

What science knows now indicates that the public does not need to be alarmed about the level of strontium-90 in the U. S. milk supply at the present time. Americans can be confident that Public Health Service is aware of the problem and is constantly watching the situation as it develops.

Milk should be one of the last sources of calcium that the public thinks of removing from its diet because of the danger of radio-active fall-out from atomic explosions, Larson believes.

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RAJ:cm
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FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Care of Bulb Plants

by J. R. Kamp
University of Illinois Department of Horticulture

URBANA--Some of the home garden's prettiest and easiest to care for flowers are bulbs. Several examples include tulips, glads, peonies and daffodils. Here are some pointers on their care.

Fertilizer: Most bulb plants need little if any fertilizer. Usually they obtain all their necessary nutrients from the soil without any being added.

Plant tops: Do not remove tops of bulb plants until they die naturally. Why? The leaves manufacture food material which is stored in the bulbs. This makes strong healthy bulbs which will continue to bloom year after year. When tops are removed after blooming, an adequate amount of food material is not available to keep the bulbs strong. Bulb plants treated this way will eventually cease to bloom.

Iris borer: Control this insect pest with a spray or dust of 5 percent DDT. Make the first application between the time when plants first begin growing and when they reach a height of four inches. Then make two more applications ten days apart. By this rule, it is too late now to make applications. But, go ahead and apply now for they will still give some control.

Iris rot: This disease cannot be controlled now. Instead, wait until August and dig up plants. Then cut out all rot and treat cut surfaces with a sulphur dust. Conditions which favor rot include: borer damage, poor drainage, crowded plants, garden debris around and over plants, and plants in shaded adeas. These conditions prevent crowns from drying out.

So prevention should include: controlling borers, planting in area with good drainage, spacing plants and thinning periodically, cleaning up debris and planting iris in full sunlight.

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Poor-blooming Narcissus: Why don't narcissus continue blooming regularly? Probably because they are too thick. Narcissus divide rapidly, causing crowding in a short time. In order to leave longer time between digging and thinning, space original plants at least six inches apart. Then plant the bulb so the top is at least five or six inches below the soil surface. The more shallow narcissus are planted, the faster they multiply.

If double flowered narcissus are blooming poorly, the disease botrytis may be causing the trouble. This disease forms a sticky substance on the buds causing the flower parts to stick together. To control botrytis, apply a copper base fungicide during spring.

Peonies: Peonies, too, need little if any fertilizer. Some peonies in UI plots, planted 25 years ago, have never received fertilizer. And they are still healthy and vigorous plants.

Remove peonie tops in the fall after they have been killed by frost. All tops and other refuse from peonie beds must be burned as they carry disease spores.

If ants move into peonies, do not be alarmed. They are looking for sweet nectar and will not harm the plant itself. Or they may be associated with aphids. Aphids secrete a honey dew and ants follow them around, collecting the honey dew. Ants are easily controlled though by applying chlordane dust around the plant base or the anthill. Do not apply dust to the peonie plants.

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ILLINOIS FARMERS' OUTLOOK LETTER

APRIL 1 STOCKS SHOW RAPID DISAPPEARANCE OF CORN AND SOYBEANS

URBANA, ILLINOIS APRIL 29, 1959

Total stocks of most grains are at record highs for this time of the year, but the rates of use are also high. These facts were shown by the USDA report of total stocks of grains in the United States on April 1.

CORN. Total stocks of corn in the United States on April 1 were officially estimated at 2,992 million bushels, 7 percent more than one year before. This reflected a disappearance of 934 million bushels during the January-March quarter, 16 percent more than last year.

Farmers had put 333 million bushels of their 1958 corn crop under price support by the end of March. The rate of flow into price support was slightly greater than one year before, but less than the record rate of two years before. Through March, farmers had repaid their price support loans on only 1 percent of the corn that they had put under loan.

About three-fifths of the 1958 crop corn placed under loan was at the high support rate, and two-fifths at the low rate.

SOYBEANS. Total stocks of soybeans in the United States on April 1 were estimated at 323 million bushels, or 26 percent more than a year earlier. These stocks reflected a disappearance of 146 million bushels since January 1. This disappearance was 16 percent more than the corresponding figure for a year earlier.

Processors crushed 36,010,000 bushels of soybeans in March, 17 percent more than last year. Total crushings from last October 1 through March were 208,106,000 bushels, or 19 percent more than the year before.

Recent prices of soybeans were slightly higher than 12 months before. In sharp contrast, prices of both the major bean products--oil and meal--were substantially lower. Most processors get around 11 pounds of oil from a bushel of beans. Recent prices for oil were around 9 1/4 cents a pound, nearly 2 cents lower than a year earlier.

(Continued)

At the same time soybean meal prices (Decatur) were quoted at $55 to $56 a ton, or $4 les than one year before. The usual yield of meal is about 48 pounds from a bushel of beans.

While recent bean prices were 2 to 5 cents higher than one year before, the value of product obtainable from a bushel of beans was down about 30 cents.

By the last of March farmers had paid off their price support loans on 7 million bushels of soy beans. This was 5 percent of the 140 million bushels of the 1958 crop that had been put under pric support.

WHEAT. Stocks of wheat on April 1 were estimated at 1,540 million bushels. While thi was 37 percent more than one year before, it was only 16 percent more than the previous record se three years before. Disappearance in the January-March quarter was 275 million bushels, 3 percer more than a year before.

Farmers placed 609 million bushels of 1958 wheat under price support loans by the end o March and had repaid loans on 59 million bushels.

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Director

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Farm News

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FOR IMMEDIATE RELEASE

Ground Ear Corn Makes Good Silage Additive

URBANA--Ground ear corn added at the rate of 150 to 200 pounds per ton has long been known to be a good additive for high-quality legume silage.

Dry corn takes up some of the moisture in the silage and adds carbohydrates that ferment in the silage process to produce the lactic acid that preserves the forage, says K. A. Kendall, dairy scientist at the University of Illinois College of Agriculture.

Adding molasses at the rate of 60 pounds per ton to legumes and grasses when ensiled at 75 to 80 percent moisture will also help to preserve the forage, as well as add feeding value to the silage, Kendall says.

Another additive used in some cases is sodium metabisulfite. Its chief value, according to Kendall, is its ability to help preserve the carotene content of the silage and to reduce butyric acid formation. This makes the silage smell better.

Adding sodium metabisulfite uniformly at the recommended rate of 8 pounds per ton of forage is difficult. It also does not add any feeding value to the forage as do such fermentable carbohydrate energy

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sources as corn or molasses. These last two will keep more than 80 percent of their nutrient value in the silage.

Feeding high-moisture grass silage to milking cows will limit the amount of energy the cow is able to eat. High-producing cows are not able to keep their milk production up on a diet of high-moisture silage without extra grain.

For ideal acid formation in silage, forage should have a moisture content of between 65 and 75 percent when it is ensiled without additives, Kendall points out. Ensiling forage wetter than that without additives makes a high butyric acid type of silage that may be unpalatable and have a disagreeable odor. Mold is a problem in silage put up at less than 65 percent moisture.

Most forages put up at between 65 and 75 percent moisture do not need such additives as corn or molasses to keep them from spoiling. But the added energy in the additives not only makes better feed out of the silage, but allows the farmer to put it up at moisture contents as high as 75 to 80 percent. This is an advantage when he is trying to beat the weather.

For highest quality, alfalfa needs to be harvested at the 1/10th-bloom stage, Kendall says. It can be wilted for one or two hours on a good drying day to get the moisture down to between 65 and 75 percent. But take care not to overwilt, or the forage will go into the silo too dry. Also, remember that harvesting less mature forage gives a lower yield per acre.

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FOR IMMEDIATE RELEASE

Paper Mulches Increase Vegetable Yields

URBANA--A new paper mulch with a built-in fungicide to fight decomposition will greatly increase tomato and cucumber yields, according to test plot results at the University of Illinois last year.

N. F. Oebker, vegetable crops specialist, says the idea of combining a fungicide with a paper mulch keeps the paper from decomposing before harvesting is finished. Molds and fungi often break down untreated paper during the growing season.

The new paper stands up well under normal treatment during laying and harvesting, according to Oebker. And it contains no material that is toxic to plants.

UI researchers transplanted tomatoes directly through the paper last year. Cucumbers were seeded through holes in the paper four feet apart in the row.

Yield results showed that Sioux and Garden State tomatoes mulched with the new paper outyielded unmulched plots by nearly 500 baskets of marketable tomatoes an acre. Each basket contained 10 pounds of tomatoes.

There was little difference in early yield between paper-mulched and unstaked tomato plots. Paper mulching greatly increased early yields compared with staking, though. Cost of labor and materials for producing a crop on paper is also less than for a staked crop.

In 1958, cucumbers gave much higher yields on paper-mulched plots than on unmulched plots. In fact, yields increased from 418

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bushels an acre on unmulched plots to 661 bushels with the new paper. Paper-mulched plots also slightly outyielded plots mulched with black plastic at Urbana. The mulched plots would have shown more than a $600 increase in net return over unmulched plots last year.

Oebker points out that the paper mulch controls weeds in the row areas. Usually the paper covers about half the area between the rows. The middle-row spaces are easily cultivated or sprayed with a weed control chemical.

The paper mulches also seem to regulate the moisture supply under the plants. In a dry season the mulch reduces evaporation and saves moisture. In wet weather the paper seems to prevent "waterlogging" of soil in the root zones. Small holes drilled into the paper allow water to drain into the soil.

Since fruits never touch the soil when a paper mulch is used, disease losses are less than in unmulched plots. One trial found that mulching with paper cut anthracnose losses 30 percent. Illinois trial results show that internal browning was more than three times as serious in staked plots as in paper-mulched plots last year.

Compared with plastic, the new paper has the advantages of lower cost and easier disposal. Trials at Southern Illinois University indicate little difference in yields of tomatoes mulched with paper or black plastic. But the paper mulch costs only a little more than half as much per acre as the usual black plastic.

Home gardeners anxious to try this new paper mulch will probably have to wait another year, Oebker reports. Researchers feel that more tests are necessary before the paper becomes available to the general public.

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FOR IMMEDIATE RELEASE

Warns Against Selling Treated Wheat or Oats

URBANA--Farmers who have any mercury-treated seed wheat or oats left on their farms should not sell it or mix it with other grain for sale, according to L. F. Stice, University of Illinois grain marketing economist. Anyone who sells mercury-treated grain in bulk and unlabeled is violating the state seed law and can be fined up to $500 for each violation.

The law states that grains treated with chemicals that are harmful to humans or animals must be sold in sacks or bags and be labeled unfit for livestock or human food. If the compound contains mercury or other toxic substances, the label must carry the word "Poison."

Stice cites a recent report from the Millers' National Federation that flour millers are constantly on the watch for "pink wheat," the term used in the trade for mercury-treated wheat. Just a small amount of this seed wheat mixed in other wheat makes the entire load or shipment unfit for food or feed and subject to seizure by the Food and Drug Administration.

When such a load of contaminated grain is found, it must be destroyed or shipped to a scouring plant. Scoured grain must be sold at a heavy discount, and the owner takes a heavy loss.

Once grains are treated, they should be used only for seed. Mercury is highly poisonous, and only a few kernels of treated grain will cause the entire lot to be condemned. Any left-over treated seed should be destroyed or properly bagged and tagged for use the next year.

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4/29/59

FOR IMMEDIATE RELEASE

Urge Farmers to Watch Corn Planting Rate

URBANA--Farmers who want to be sure of getting the highest corn yield will want to plant about 15 percent more seed than the actual stand they expect to harvest.

University of Illinois agronomist J. W. Pendleton pointed out this week that cold wet soils, insects, diseases and cultivation losses will usually add up to a planting loss of about 15 percent. Farmers who do not take this loss into account when they set their planters will be robbing themselves of corn yields because of less stand than they plan for.

Pendleton recommends a population of 16,000 plants an acre on land that is capable of producing 100 bushels. But to get this population at harvest, the planting rate will have to be stepped up by 15 percent.

For land capable of producing 75 bushels an acre, the agronomist recommends a 12,000 plant population.

So to allow for stand losses, you will need to plant almost 19,000 kernels an acre on 100-bushel land or 14,000 kernels on 75-bushel land.

To get 19,000 kernels in the ground, you will need to drill one kernel every 8 to 9 inches or hill-drop 3 kernels every 25 inches in 40-inch rows.

Pendleton makes these recommendations for present hybrids used by farmers. Corn breeders are working to develop hybrids that will stand higher planting rates.

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Agricultural engineers at the University point out that when farmers plant at high speeds, cells on the planter plates will not fill as completely as at a slower speed. For farmers who plant at higher speeds, they recommend using a plate with a longer cell and a higher seeding rate setting.

It is also a good idea to periodically dump out the planter boxes completely. This will help prevent "misses," since with the conventional edgedrop corn planter plates, oversize kernels stay in the box.

After you have planted about 15 percent more seed than required for the stand you want in order to get top yields, dig up behind the planter occasionally to make sure the planter is performing as you want it to.

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THIS WEEK....

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Change in Date

Instead of May 25, as stated in last week's column, wool for the wool pool will be received at the Station on May 26.

Plowed Seedbed Better

In four years of grazing study with yearling cattle, six one-acre pasture tracts renovated by plowing and reseeding produced more gain than matching pastures renewed with a pasture renovator. The pasture renovator is a machine designed to shortcut the plowing operation and to fertilize the reseed in the old pasture sod. Each year animal gains averaged about 35 pounds more an acre for the plowed seedbed than for the pasture renovator seeding.

Soil Compaction With Irrigation?

Contrary to what we might guess, pasture irrigation does not cause greater soil compaction. Lee Gard, station researcher, took soil compaction samples at several depths on both irrigated and non-irrigated pastures and found very little difference between the two. Lee feels that animals grazing wet pastures will cause soil compaction, but that natural rainfall is a greater factor and that irrigation adds little to the problem.

Legumes Valuable Source of Nitrogen

Nitrogen spread at the high rate of 100 pounds of N an acre during each year of a seven-year period failed to increase the forage yields of a ladino-grass pasture on the Station. The ladino clover was apparently supplying enough nitrogen. About all the heavy nitrogen treatment accomplished was to eliminate clovers from the pasture stand.

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Age to Breed Beef Heifers

The age at which to breed beef heifers for first calving has been a controversial subject for years. Should they be bred to calve the first time as two-year-olds, or should they be held another year and bred to calve first at three years of age? Here's what we found in a 12-year study of this question:

1. During the productive life of cows, those bred first as yearlings weaned one more calf for about 350 pounds more total weaned weight.

2. Weaning weight per calf favored breeding cows first as two-year-olds.

3. There was little or no difference between mature weights of cows bred first either as yearlings or as two-year-olds.

However, Station Superintendent Bob Webb suggests some precautions to take in the event heifers are bred as yearlings:

Breed only growthy yearlings. Heifers calving as two-year-olds will need better care and closer attention, particularly at calving time. Also, expect more calving difficulties in the younger heifers. It would be wise to breed yearling heifers to a bull known to sire calves of average or below-average birth weights. And, finally, the young heifer will require better pastures to keep the growing heifer and calf coming along.

Nelson Reports

Bob Nelson, extension forester, reports that his tree-planting season has been completed, 75,000 trees being planted this spring. This represents some 75 acres of demonstration plantings in southern Illinois. Loblolly and short-leaf pines were the principal trees planted.

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4/30/59

farm Radio News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

National Co-Op Conference Plans Announced

URBANA--About 3,000 farm leaders and farm youth are expected to gather on the University of Illinois campus August 9-12 for the 31st annual summer session of the American Institute of Cooperation. The theme for this year's conference will be "Gearing Cooperatives to Serve Modern Agriculture."

Paul C. Johnson, editor of Prairie Farmer, will be the keynote speaker during the opening general session on Monday, August 10. Raymond W. Miller, former Institute president and now with the Harvard Graduate School of Business, will speak at the closing session on Wednesday evening, August 12.

Special group and sectional meetings covering current operating problems of co-ops will be featured. More than 1,200 young farmers and rural youth will attend their own special sessions, including discussions, tours of local cooperatives and nearby farms.

All farm leaders and others interested in agricultural marketing and services should find the Illinois program of great interest and value, according to Institute President J. K. Stern, Washington, D. C.

G. L. Jordan, University of Illinois Department of Agricultural Economics, is chairman of local arrangements for the conference. He reports that there will be ample housing on the campus, and reservations should be made through his office.

Two special events also scheduled in conjunction with the conference are the annual Extension Workers Workshop on August 7-8 and the Workshop for Women Workers of Cooperatives on August 8.

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FOR IMMEDIATE RELEASE

Estimate 1829 Land Values to Settle Indian Claim

URBANA--Several University of Illinois staff members recently assisted in estimating Illinois land values in 1829 for a case pending before the Indian Claims Commission in Washington, D. C.

The Pottawatomi, Ottawa and Chippewa Indians are claiming that the government did not pay a sufficient amount for their lands in an 1829 treaty at Prairie du Chien, Wisconsin. The United States government, in defending the treaty, hired the Walter R. Kuehnle Co., Chicago real estate appraisers, to estimate the value of the land at that time.

Comprehensive study covering the past four yearswas needed to develop the facts for this case. These University of Illinois staff members have served as consultants: C. L. Stewart, professor of agricultural economics; V. I. West, associate professor of agricultural economics; Russell T. Odell, professor of soil physics; Richard H. Rust, assistant professor of soils, now at the University of Minnesota; Donald L. Kemmerer, professor of economics; R. O. Harvey, associate professor of finance; Arthur F. Hagner, professor of geology; and T. T. Tsui, graduate student in agricultural economics.

The final report estimated the value of 3.5 million acres in northern Illinois and southwestern Wisconsin at $820,000 in 1829. The present value of this area is at least 2,000 times that much.

The final report, covering over 200 pages, deals with the agricultural, mining and economic history and also the land values up to 1829. At that time, Illinois had a population of 157,000, no banks, interest rates of 35 percent on land purchases and very primitive farming methods. Corn sold for 5 to 8 cents a bushel, eggs for 3 cents a dozen, pork for 1 cent a pound and cows for $5 to $10 a head.

Development of this area through drainage, roads, transportation, new farming methods, general economic advancements, urbanization and inflation accounts for the great rise in land values since that time, according to Stewart and Harvey. A decision on the claim is expected at some future date.

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FOR IMMEDIATE RELEASE

Commercial Orchards Cooperate With UI in Research

URBANA--Several commercial apple and peach growers in Illinois are currently helping University of Illinois horticultural researchers who are studying problems of pruning, fertilization and irrigation.

These fruit growers let the University use their trees for conducting studies. Without the cooperation of the growers, it would take the researchers much longer to conduct the same studies with the limited grove acreage at Urbana, explains Frank Owen, extension fruit crops specialist. In addition, it gives them a chance to conduct trials under actual commercial conditions.

Owen himself is working with five growers in carrying out pruning trials and demonstrations. Growers cooperating in the pruning work include the LeRoy Hagan Orchard at Brussels, the Norman McKnelly Orchard in Calhoun county, August and John Nolen Orchards at Brussels, and the Nugent-Schpanski Orchards at Grafton.

These demonstrations are set up to (1) interest growers in pruning their trees and (2) teach proper methods of training young trees and pruning bearing trees. The demonstrations also help Owen to develop better pruning methods to get the maximum amount of high-quality fruit from each tree.

Owen points out that these growers receive no monetary compensation for their cooperation. This point is noteworthy since they take something of a chance in pruning whole orchards according to the

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University's demonstration methods. Although the chances are slim, and it never has happened, something could go wrong and the grower could lose his crop.

On the other hand, growers benefit from having skilled specialists supervise the pruning of their orchards. Often the result is trees yielding a larger crop.

Irrigation is another phase of cooperative research. Roy K. Simons, fruit crops researcher, directs these studies, which are carried out in the Nugent-Schpanski groves. Since this orchard is set up for irrigation, they agreed to cooperate. Simons is attempting to determine the actual value of irrigating Illinois orchards. Because the study was established only two years ago, no results are yet available. Besides, it rained so much last year that Simons could not get results on irrigating.

Illinois growers face many production problems. One of them is fertilization: how much fertilizer to apply and when to apply it for best results. As a result, John Titus is working with orchards in conducting fertilization studies. Titus heads the horticultural fruit crops division.

In his work Titus has used the Hill Top and Roadhouse Orchards of the Eckert's Orchard Association. Results of his studies will better enable him to make fertilizer recommendations to other growers.

One final phase of research is an attempt to find the grass or legume, or mixture of both, that makes the best orchard "floor cover." Owen explains that most orchards are located on rough terrain. And if the ground does not have a permanent cover crop, serious erosion may occur. Cover crops eliminate the need for the cultivating that causes erosion.

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PAC:cm
5/4/59

FOR IMMEDIATE RELEASE

To Hold Livestock Conference in Urbana

URBANA--More than 60 extension specialists in livestock marketing and production will meet at the University of Illinois May 11-13.

Representing the north central states, these specialists will discuss mutual problems in both production and marketing aspects of the livestock business. They will also consider the changing extension service and how to keep their individual state programs in tune with the times.

Dean Louis B. Howard of the UI College of Agriculture will welcome the specialists when the program starts at 9:00 a.m. on May 11 in Room 314 South, Illini Union. Extension Director J. W. Burch of Missouri will discuss how to help livestock farmers adjust to the changing agricultural picture, and E. R. Kiehl of Missouri will talk about the changing market structure.

Most of the meeting time will be spent in smaller groups representing beef cattle, swine, sheep and marketing. In these group sessions the specialists will discuss systems of production and marketing, prescription production and management problems. In the Wednesday morning session they will discuss the future role of extension work.

Paul C. Johnson, editor of Prairie Farmer magazine, Chicago, will be the featured speaker at the Monday evening dinner. He will give his views on what extension should be doing.

Other featured speakers include George Short, Kroger Company, Peoria, discussing quality in today's market, and UI agricultural engineers F. W. Andrew and D. G. Jedele, showing some engineered systems for livestock production.

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RAJ:cm
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TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Transplanting Vegetables to the Garden

by Norman F. Oebker
Department of Horticulture, University of Illinois

URBANA--Many vegetables need transplanting in order to produce early yields. In fact, some vegetables won't produce satisfactorily unless they are transplanted.

The most commonly transplanted vegetables are tomatoes, peppers, broccoli, cabbage, cauliflower, head lettuce, celery, eggplant and onions. Cucumber, muskmelon or watermelon plants can also be set out, but they need more careful handling.

A home gardener with the proper equipment can get better plants for transplanting by growing his own. But he can also buy good plants from nurseries, seed stores, local greenhouses or other plant dealers.

When buying plants, select those that are stocky, medium-sized and free from disease. Good root systems are extremely important. Plants should also be hardened. Hardened plants have been subjected to cooler temperatures with less water than usual. This makes them more hardy if temperatures should drop. However, be careful not to over-harden plants.

Do not buy plants that are tender, yellow, spindly, too large or diseased. Disease symptoms include brown or yellow spots on the leaves, or dark brown cankers at the base of the stem.

When moving the plants from the container to the garden, keep as much soil as possible around the roots. Best results are obtained when the plants are not disturbed any more than necessary. Plants started in pots, bands or other similar containers can be transplanted to the field with less injury than plants grown in flats or boxes of soil.

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To transplant cucumbers or melons successfully, start them in bands. When the band is removed, the soil remains intact and the root system is not disturbed.

In transplanting, set plants slightly deeper than they grew in the pot or flat. Cover the roots with a little soil, and pour about a cup of "starter solution" into the hole around each plant before replacing the soil. Then pack the soil firmly around the plant.

"Starter solutions" are concentrated, all-soluble fertilizers containing a high phosphorus content. They are used to promote rapid growth and larger, earlier yields. Starter solutions are special fertilizers in dry form, usually with an analysis of about 10-52-17. They are sold by most garden, seed and supply stores. Home gardeners can make their own by mixing one cup of 5-10-5 or similar analysis in a 12-quart pail of water.

Plant protectors, usually called hot caps or hot tents, are sometimes used in early spring to protect vegetables from light frosts and cold winds. Put them over the plants as soon as they have been transplanted if there is danger of frost. After all frost danger is past, open the protector gradually to harden the plant.

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ILLINOIS FARMERS' OUTLOOK LETTER

HOG PRICES MAY RISE BEFORE MIDSUMMER

URBANA, ILLINOIS MAY 6, 1959

Hog prices followed opposite courses during the past two marketing years. In 1957-58 they went up from $16 in November to $23 in July. This year prices slipped from $18 in November to $15 in February. They have trended slightly upward since last February and may rise more in May and June.

Hog production and marketings have followed a very unusual pattern during the past 12 months. Farmers began a big increase in hog production with the 1958 fall pig crop. They saved about 42.5 million pigs, 17 percent more than the year before. This number was the most ever produced in any peacetime year, and it was 11 percent more than was produced in that big year of 1955.

Hog marketings usually reach their annual peak in the late fall, often in November. This year, weekly supplies followed normal trends until mid-January. Then, because of the large fall pig crop, marketings increased and held above the largest fall supplies for 10 weeks, or until late March. There was a normal reduction of market supplies near the end of March, and some further normal reduction is likely in May and June.

Output of pork was 28 percent greater in February than a year earlier. March output was up 1 percent from the previous month and 18 percent from the previous year. In April, it was down a little from the winter highs, but about 15 percent above the year before.

Market supplies now seem likely to shrink some 10 or 15 percent by the end of June, but the total volume for the 60-day period should be around 15 percent more than last year. The expected shrinkage should provide a little lift to prices in May or June.

In each of the past four years, hog prices have averaged higher in May than in April, and higher in June than in May. Highest monthly average prices occurred once in June, once in July and twice in August. June has the highest four-year average, $19.72. Prices have reached $20 every year since World War II except in 1956.

(Continued)

While the 1958 fall pig crop was big by any comparison, the 1959 spring crop does not appear to be outstanding. The estimate is around 59 million head, which would be 13 percent more than the small number saved in 1958. This number has been approached three times in the past 10 years and exceeded once--in 1951.

The number of "winter" (December-February) pigs saved in nine corn-belt states was only 11 percent more than the year before. The average number saved per litter was down about 2 percent from normal.

In March, farmers in nine corn-belt states reported that they would have only 9 percent more sows farrow in the three months March-May than they had last year. They also reported that they would have 9 percent more sows farrow in June-August this year. This increase is not great in itself, but it would be on top of the large increase already marked up in those months last summer.

Prices may hold up fairly well this fall. But if sow farrowings are increased substantially this fall and next spring, 1960 may be a poor year for hog producers.

L. H. Simerl
Department of Agricultural Economics

THE UNIVERSITY OF ILLINOIS
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Urbana, Illinois

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THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Corn planting is the order of the day on the Dixon Springs Experiment Station. As rapidly as ground can be plowed, it is being planted.

Wheel-Track Planting

Hot on the heels of and pushing the plowing crew is the planting crew, which is using the wheel-track technique for planting. The rear wheels of the tractor pulling the planter are making the seedbed.

Four years of very satisfactory yields with minimum tillage on the plots prompted George McKibben, crops and soils researcher, to give wheel-track planting a field scale trial. Results last year were so convincing that this year George is going all-out. But, before an adequate job on a large scale could be done, Lee Phelps and Don Morris, Station mechanics, had to rebuild a couple of the Station's tractors so that the wheels would track for 40-inch rows.

Good Job of Plowing

For best results with wheel-track planting, it is important to plow the best you can. Except for one or two cultivations, the corn crop will have no other tillage. Also, George feels that the plow should be followed closely by the planter before the soil dries and hardens, making clods in the row harder to break.

Planting Rate

Never can we expect to realize the potential of our soils if our corn plant population is too low. Of course, productivity levels of soils vary. Following are some guides: For soils with a potential of 60 bushels of corn an acre, shoot for a plant every 18 inches in rows spaced 40 inches apart. For an 80-bushel soil, space plants 13 inches apart. For 100-bushel soil use a spacing of about 10 inches. To determine whether you planted about right last year, pull some sample ears from the

-more-

crib and weigh them. If ears weigh about 1/2 pound, the planting rate was about right.

Feeder Pig Sale

On Tuesday, April 28, about 1,100 pigs were consigned by members of the Egyptian Livestock Association for sale at Dixon Springs. These pigs sold for an average of about $14.00 a head. Sale toppers were some 50- to 60-pound pigs that brought 32 1/2 cents a pound.

Wool Pool

Last year nearly 100 wool growers around the Station consigned about 23,000 pounds of wool to the Dixon Springs wool pool. An average price of 41 cents a pound for all grades of wool, including tags, was paid last year. This was about 10 cents higher than separate on-the-farm bids. So local wool producers are planning another pool this year. Wool will be received for grading on Tuesday, May 26.

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FOR IMMEDIATE RELEASE

Removing Old Farm Buildings Legal When Caution Taken

URBANA--If you have some old farm buildings you want to get rid of, there's nothing illegal about burning them or removing them with a bulldozer, according to N. G. P. Krausz, University of Illinois professor of agricultural law.

However, burning would be illegal if done maliciously and with willful intent to defraud an insurance company, Krausz points out. It must also not impinge upon anyone else's right in the property, such as a lessee or a mortgage-holder.

For public safety, the owner of an old building may be required to get a permit before he burns it. Local laws should be checked on this point. Removing old buildings with a bulldozer appears to be a perfectly legal means of getting rid of them.

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FOR IMMEDIATE RELEASE

Trials Show Weed Sprays Usually Pay

URBANA--Corn yields dropped up to 26 bushels an acre and soybean yields were off as much as 17 bushels in two-year trials when University of Illinois agronomists let giant foxtail compete with the growing crops.

F. W. Slife and E. L. Knake, researchers in charge of the weed plots, say that such large yield losses show that Illinois farmers can often afford even the more expensive grass-killing herbicides.

Pre-emergence sprays of Randox, Simazine, Eptam, Alanap and 2,4-D ester are gaining favor for use on corn. 2,4-D controls broadleaf weeds while the others control grasses and sometimes broadleaf weeds as well.

To check the results of giant foxtail on corn and soybean yields, agronomists planted the weed in the rows with the grain. Then they hand-thinned the foxtail stands to compare the effects of weed population on yields.

The thickest foxtail stands were in a four-inch band over the rows. These bands averaged 28 foxtail stems in every foot of row length.

Other rows were hand-thinned to one foxtail stem for every inch, two inches, four inches, one foot and two feet of row length. As the weeds became thinner, yields increased.

-more-

But even where there was only one foxtail stem every two feet, corn yields were off as much as seven bushels an acre and soybean yields suffered as much as a three bushel loss.

A second part of the weed study was designed to find out whether or not weeds actually compete with growing crops for soil nutrients. Researchers set up separate plots and applied superphosphate and potash according to test. Then they put the equivalent of 80 pounds of actual nitrogen on each acre of the test plots.

The nutrient study plots were planted to corn at 16,000 plants an acre. Some of the plots were clean-cultivated while others had a giant foxtail population of 27 stems in each foot of row length. Part of the plots got an extra 160 pounds of nitrogen side-dressed during the growing season.

Where only the 80 pounds of nitrogen was used, foxtail in the rows cut corn yields nearly 19 bushels an acre. Where extra nitrogen was spread, the clean plots outyielded the weedy plots by up to 15 bushels.

Knake says these figures show that weeds do lower corn yields and also that adding nitrogen to growing corn increases yields regardless of whether or not the corn is weedy. But yields are always highest when nitrogen is added to clean corn rows.

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Milking machines, pour stations, strainers and all other equipment need to be cleaned, sanitized and stored by using these same recommended practices, Alexander says. Cold wall bulk tanks are also washed and sanitized right after the milk is picked up.

These experiments did not find out how durable the plastic hose is for this type of operation. However, the hose softened when it was cleaned with water at temperatures as high as 170 degrees F. In that case, the hose flattened enough over the hanging hooks to interfere with the vacuum in the line. The hose stayed firm when the water temperature was not higher than 145 degrees.

Alexander emphasizes that satisfactory results with any type of milk pipeline come only by carefully following every step of this recommended cleaning process.

Dairymen who wish to install plastic hose for conveying milk from the barn to the milkhouse should apply to the Division of Milk Control, Department of Public Health, Springfield, for approval.

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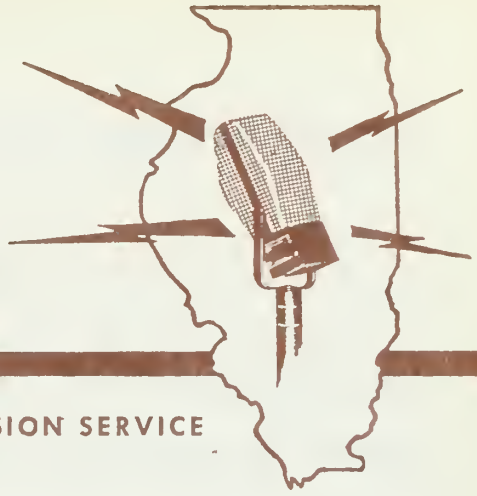

FOR IMMEDIATE RELEASE

Set Annual Agronomy Day on June 24

URBANA--More than 1,000 Illinois farmers will be guests of the University of Illinois Department of Agronomy on June 24, when crop and soil scientists will display their latest research projects on the University Agronomy Research Farm at Urbana.

M. B. Russell, head of the agronomy department, invites all farmers and others interested in crops and soils to come and see research in progress and to learn the latest findings.

Co-chairmen Carl N. Hittle and S. R. Aldrich report that the following areas are being planned for the tours: crop insects, crop diseases, chemical weed control and equipment, corn population studies, corn tillage, soybean row-width research, soybean types and new varieties, alfalfa varieties and management research, band-seeding legumes, establishing forage legumes with herbicides, soil fertility research, soil profiles, water use and wheat and oat variety tests.

The Agronomy Research Farm is located directly south of the main University campus at Champaign-Urbana. Tours will begin at 9:30 a.m. and will continue through the morning and early afternoon.

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FOR IMMEDIATE RELEASE

More Care Will Help Avoid Drift Damage From 2,4-D

URBANA--Increased damage from 2,4-D spray drift has been reported on sensitive crops like tomatoes, grapes and soybeans in recent years. If farmers are to avoid restrictions or lawsuits, they must use more care in applying these useful but destructive materials.

University of Illinois agronomist F. W. Slife and plant pathologist M. B. Linn make these recommendations to help reduce danger of drift damage:

Do not apply 2,4-D to growing crops on a windy day. Wind can carry destructive spray drift more than half a mile.

Use a high-gallonage sprayer that will apply the 2,4-D in a coarse, less concentrated spray.

Use a low-pressure sprayer with not over 30 pounds of pressure.

Do not use 2,4-D in a cornfield adjacent to a sensitive crop. Instead, use one of the pre-emergence chemicals that will also kill weeds effectively.

For killing brush in fencerows, use one of the new pellet forms of weed killer.

Avoid using the high-volatile ester formulations of 2,4-D. Damaging fumes from these forms will produce a gas for as long as three days after application.

If using 2,4-D apply the amine form because with it there is less danger of producing fumes after application.

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Slife reports that in many Illinois counties, more than 50 percent of all corn is sprayed with 2,4-D. This means that a lot of sensitive crops, gardens and shrubs will be damaged unless farmers use extreme caution to avoid drift damage.

Drifting spray may also cause legal problems. N. G. P. Krausz, University of Illinois professor of agricultural law, points out a well-established principle of law that says a person using a dangerous substance, does so at his own risk. This means that if a farmer, in spraying his crops, harms his neighbor's crops or livestock, he can be made to pay reasonable damages--even though he may not have been negligent in mixing or applying the spray.

Farmers cannot avoid liability by employing a custom sprayer. Courts have decided that custom spraying is inherently dangerous and hazardous and that the farmer hiring the job done, as well as the spray operator, may be held liable for injuries.

Krausz urges farmers who plan to apply chemical sprays or dusts this season to use extreme care to avoid liability. If custom sprayers are employed, the farmer should see that they carry liability insurance covering injuries from drifting or misapplied spray so that he may protect himself and his neighbors.

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FOR IMMEDIATE RELEASE

(Note to editors: Suggested release dates: southern half of Illinois, May 15; central Illinois, June 1; northern Illinois, June 15)

Bagworms Defoliate Trees and Shrubs

URBANA-- Some worms never stray far from home, but they chew leaves of a wide variety of deciduous and evergreen trees and shrubs.

That's the story of Thyridopteryx ephemeraeformis, better known as the common bagworm. Its home is the spindle-shaped bag seen hanging from the limbs of trees and shrubs.

The bag is made of silk-like threads and bits of foliage from prized ornamentals. Whenever the worm wants to move, the bag moves along with it.

Steve Moore, entomologist with the University of Illinois and Illinois Natural History Survey, points out that the bags serve as places for eggs to overwinter. Now the eggs that stayed in the bags all winter are about to hatch. After hatching, the young worms will start their annual feast on ornamental foliage.

Later in the summer, the worms change into the pupal, or resting, stage and then into the adult stage. Adult females are wingless and stay within the bags while the black, furry winged males fly about.

Each female can lay up to 500 eggs. She packs them into the upper part of the bag with scales from her body. After laying the eggs, the female dies. There is only one generation a year.

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Since bagworms form protective sacks while young, sprays will kill them only if applied soon after the worms hatch. To prevent plant damage, the spraying should be done before the end of June. The ideal time to spray in the southern section of Illinois is June 1; in the central section, June 15; and in the northern section, June 30.

Moore lists several sprays that are recommended to control bagworms: Two teaspoons of 50 percent liquid malathion; one tablespoon of 25 percent malathion wettable powder; three teaspoons of 60 percent liquid toxaphene, or one tablespoon of lead arsenate mixed with a gallon of water should do the trick. Caution: Malathion may injure Cannart junipers.

These sprays are not completely effective unless they reach all of the tree foliage. More than one application may be needed, depending on weather and completeness of coverage.

Pulling the bags from branches and burning them will also reduce the bagworm population. When left alone, the worms usually do not kill deciduous trees, but evergreens often die when bagworms destroy the leaves.

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5/12/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Hints for Better Tomato Production

by Norman F. Oebker
Vegetable Crops Specialist, University of Illinois

URBANA--At least a few tomato plants are a must in every home garden. Tomatoes are easy to grow and will thrive under a wide range of conditions if they receive proper care. If you want high-quality tomatoes from your garden, these pointers will help you:

First select a well-drained, fertile soil. If you are uncertain about what nutrients your soil needs for tomato production, send a soil sample to the University of Illinois for testing. The UI soil testers will recommend the proper fertilizers for your soil. Send the soil sample to Soil Testing Laboratory, Floriculture Building, Urbana. There is a charge of $1.00 for each sample.

When selecting tomato plants, choose short, stocky plants rather than tall, spindly ones. Also, select varieties that have proved they will grow well in your area. And if you plant both an early and a midseason variety, you'll have tomatoes throughout the season. The following varieties are recommended for Illinois:

Early: Sioux, Moreton Hybrid, Urbana and Glamour.

Midseason: Improved Garden State, Rutgers, Big Boy, Brookston and Manalucie.

When transplanting the tomato plants to the garden, use a plant starter solution. "Starter solutions" are concentrated, all-soluble fertilizers having a high phosphorus content. They promote rapid early growth and larger, earlier yields. You can make your own starter solution by mixing one cup of 5-10-5 or similar fertilizer in a 12-quart pail of water. Pour about 1/2 pint of this solution around the roots of each plant.

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Try to keep the soil on the roots when you transplant. The soil around the roots holds moisture and nutrients that help the plants get off to a good start.

For good yields, space the plants about two or three feet apart in the rows. Space the rows about three or four feet apart. Control all weeds because they compete with the tomatoes for plant nutrients and moisture. Insect and disease control is also necessary for successful tomato production.

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ILLINOIS FARMERS' OUTLOOK LETTER

BUSINESS ACTIVITY REACHES NEW HIGHS

URBANA, ILLINOIS MAY 13, 1959

Business recovery has been under way for a year. Most measures of business activity have reached new record highs, but some problems remain.

Civilian employment reached 65 million in March. This number was 2.1 million more than a year earlier and 700,000 more than the number at work two years before (similar months must be compared to show real progress, since there are always more jobs in summer than in winter).

Unemployment in April was estimated at 3.7 million, which was 1.5 million less than one year before and 1 million more than two years earlier.

The index of industrial production climbed to 147 in March. This level was one point above the pre-recession high of 146 and 21 points above the recession low of 128 in May of last year.

Personal income reached an annual rate of $369 billion in March compared with the pre-recession high of $352 billion and the recession low of $348 billion.

Retail sales in March were $17.7 billion, which was $600 million more than the pre-recession high and $1.6 billion more than the recession low.

Housing starts in the first quarter of this year totaled 295,000 units. This number was 38 per-cent more than last year, and it broke the previous record set four years before.

Some of the recent business recovery was stimulated by attempts to build up steel supplies as a hedge against a long strike. Strike or not, some letdown in steel production is likely in the next few months.

There are, however, important signs of continuing recovery. For example, orders for machine tools are increasing. Orders for metal-cutting tools amounted to $105 million in the first quarter of this year, or 46 percent more than one year before.

A recent survey showed that businessmen plan to spend $2.1 billion for new plants and equip-ment this year, or 7 percent more than they spent in 1958. Most of this spending will be to replace old facilities with more efficient plants and equipment and to produce new products.

Most manufacturers still have capacity to make more than they can sell--at present prices. At the beginning of this year, they had enough unused plant capacity to increase production by one-fourth.

Personal and family spending provide more of the buying power that makes the wheels of industry go around. Part of this spending depends upon credit.

Consumers owed $44 billion at the beginning of March, or $1 billion more than one year before. It is encouraging that consumer debt increased only about half as fast as income in the 12 month period.

An important bearish factor in the business prospect is that, whereas the federal government spent $13 billion more than it took in during the year ending June 30, it is expected to keep spending much more closely in line with income in the coming year.

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THIS WEEK . . .

AT DIXON SPRINGS

(A roundup of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Perhaps someone should tell this author what is going on at Dixon Springs this week. Last week I made a quick trip to Liberty, Missouri, near Kansas City, with Virgil Bremer, Massac county beef farmer. He is sure that performance-tested bulls are worth driving several hundred miles to get, as well as being worth a little more money. This week I am in Champaign-Urbana for the North Central Region Livestock Production and Marketing Conference. Between times, I landed at the Dixon Springs Station long enough to observe that pasture grasses are heading and should be and are being clipped, corn is being planted and some much needed rain has fallen.

Represented at the Production and Marketing Conference are extension personnel working with cattle, hogs, sheep and marketing from some 10 or 11 colleges. Now any of you who know extension specialists know that their stock in trade is talking; and most of them not only can talk, but can talk well. As a result, the discussions have been broad and free-wheeling.

Changes

We all recognize the fact that farming is changing, and changing rapidly. We have integration, contract and corporation farming, specialization, rapidly developing mechanization and greater and greater emphasis on efficiency.

We all know that these changes are taking place, but we don't know whether some of the changes are good or bad. We don't all agree on how to proceed in an educational program in a rapidly changing agriculture--just as farmers do not agree on the changes they must make.

Boiling Down

Well, anyway, in a group such as is meeting this week at Urbana you boil the thing down with some good, clear thinking. Perhaps in our thinking we are too

often caught in the tidal wave of bigness in farming. Because large-scale, specialized hog production and cattle feeding are so spectacular, we tend to exaggerate their importance. We can't deny that they do exist and that they are important to our production. We don't dare say that they'll dry up and go away. They will probably continue and increase. But the thoughtful boiled-down, consideration of the group was that family-sized farming could and would compete and would be around for a long, long time.

Old-Fashioned Farm Out

J. W. Burch, Director of Extension from Missouri, stated that "the old-fashioned farm with 10 beef cows, 10 dairy cows, 20 sheep and 100 hens is out the window. But a man can still specialize in hogs and beef cattle along with corn." Director Burch said that, according to Indiana farm management folks, the unit cost on 15 to 20 brood sows could be as low as on any larger number.

Big, specialized feeding operations may have advantages in buying and marketing of animals. They may have expert nutritionists and managers on their staffs. But the good farmer can continue to produce his own feed cheaper than the specialist can buy it, and thereby hedge or reduce risks. For example, risks in buying and marketing livestock may be partly absorbed by high feed or crop yields. Then, too, home labor can beat the socks off a lot of hired labor. According to Burch, "such a farmer will continue to make tough competition for the so-called big, specialized producer."

Johnson Speaks

Paul Johnson, editor of Prairie Farmer, in a talk to the group, proposed that two-family farms, father and son or other like arrangements might be the best answer to the big 20-family farm. Mr. Johnson said, "Efficiency is a tool and must not be thought of as an end in itself." He further suggested that we do too little

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Compare Self-Fed With Hand-Fed Cattle

URBANA--Results of 13 research experiments in midwest agricultural experiment stations compare the results of self-feeding and hand-feeding beef cattle.

In these experiments, self-fed cattle gained .13 pound more a day, on the average, than hand-fed cattle, reports G. R. Carlisle, extension livestock specialist at the University of Illinois College of Agriculture.

The self-fed cattle sold for slightly more per pound, cost 26 cents more for feed per 100 pounds of gain and returned a net of 87 cents a head more than the hand-fed cattle in these tests.

In addition, Carlisle points out that a saving of labor is another advantage of the self-feeder system not covered in the research.

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From 1943 to 1946 he served as a captain in the Sanitary Corps of the Medical Department of the United States Army. He saw two years of service in Europe with the 3rd U. S. Army. He was responsible there for the rations and nutrition of prisoners and displaced persons, as well as for hospital patients of the 3rd Army.

Dr. Gardner rejoined the University of Illinois staff in 1946.

From April to July 1957 and again in April 1958, Dr. Gardner was in Turkey as deputy director of a military survey team appointed to investigate nutritional deficiencies in personnel of the Turkish military services. This project was a joint effort of the United States and Turkish governments.

He served as chairman and member of the University Committee on Student Affairs for four years and as chairman of the Student-Grants-in-Aid committee for three years. He has also been chairman of the Courses and Curricula committee, the Enrollment and Student Relations committee and the Extramural Courses committee of the College of Agriculture.

He has been a member of the executive committee of the college for four years; adviser to Alpha Gamma Rho social fraternity for 17 years; member of the Champaign County Red Cross Board, McKinley Foundation Board and Board of Fraternity Affairs; and president of the Village Board of Tolono, Illinois. He is a major in the U. S. Army reserve.

Professor Hannah has served as associate dean of the College since 1954. He was appointed to fill the position left vacant in 1952 when Robert Hudelson was appointed dean and director of the college.

Professor Hannah was born on a Piatt county farm and was graduated from the UI College of Agriculture in 1932 and from the College of Law in 1935. Since graduation he has become a widely known authority on legal problems in the field of agriculture.

After graduating in 1935, he served as district supervisor of the Agricultural Extension Service, and in 1937 was named assistant to the dean and director of the College of Agriculture.

From 1941 to 1945 he served in the United States Army with the air-borne infantry in Europe. He was wounded in action in Holland and returned to the University of Illinois staff as director of the Division of Special Services for War Veterans. He was made professor of agricultural law in 1949.

From 1955 until 1957, Professor Hannah served as field staff coordinator to head up the University of Illinois' cooperative program in India with the International Cooperation Administration. In this role he served as group leader for the program in the two large states of north-central India and as specialist in the blueprinting of a new college of agriculture in the State of Uttar Pradesh.

He is a member of the Illinois State Bar Association, the American Farm Economic Association, the American Judicature Society, the American Association of University Professors and the American Academy of Political and Social Science. He is also a member of Alpha Zeta, Gamma Sigma Delta and Phi Eta Sigma.

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FOR IMMEDIATE RELEASE

Sears-Roebuck Ag Scholarships Available to UI

URBANA--Sears-Roebuck Company is sponsoring 24 scholarships for freshmen students who will enter the University of Illinois College of Agriculture this fall.

No examination is required for these scholarships, according to C. D. Smith, assistant dean. Instead they are awarded on the basis of financial need, high school scholarship and other records that show promise of superior attainment.

Each scholarship awards about $200 for the freshman year, with the possibility of extension through the sophomore and junior years for outstanding men students. Freshmen receiving these scholarships are eligible to compete for national scholarships. Winner of the top national award receives $1,000. The next three scholarships pay $500 each, and the next four pay $250 each.

Of the 24 scholarships available to the UI, four are awarded to girls entering home economics.

The deadline for applying for these scholarships is June 1. High school seniors desiring application forms should write to Smith at 104 Mumford Hall, Urbana.

Smith reports that the Sears-Roebuck Company has awarded 20,000 scholarships during past years in the United States. Some 16,000 have gone to boys in agriculture, while about 3,000 have been awarded to home economics majors. The rest have been National Merit scholarships.

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FOR IMMEDIATE RELEASE

Resume Release of Insect Survey Bulletin

URBANA--Entomologists at the University of Illinois and the Illinois Natural History Survey have resumed release of a weekly report describing the insect situation in Illinois.

Entitled the "Insect Survey Bulletin," the report forecasts insect problems and gives suggestions for control measures. It features the situation on field crop insects, but covers in addition insects that attack livestock, stored grain, lawns, shade trees and ornamentals. It does not cover the insect enemies of vegetables or fuuit with the exception of some sweet corn pests.

Information in the report comes from about 50 cooperators, mostly farm advisers, located in various parts of the state, who send in weekly summaries of the insect infestations in their counties. The report is prepared by extension entomologists with the cooperation of research entomologists.

Anyone who is interested in the information may subscribe to the bulletin. To do so, send your name and address to Insect Survey Bulletin, 122 Mumford Hall, Urbana, Illinois. Cost is $2.00 a year to cover cost of printing and postage. Make checks payable to the University of Illinois.

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ST. LAWRENCE SEAWAY TO HELP ILLINOIS FARMERS IN THREE WAYS

URBANA, ILLINOIS
MAY 18, 1959

The opening of the St. Lawrence Seaway will help Illinois farmers in three ways: (1) it will ncrease the demand for their products, (2) it will make some supplies available at lower prices and 3) it will stimulate industrial development and business activity in the midwest.

These developments will not be sudden or revolutionary. They will not eliminate the cost-rice squeeze. They will not solve all, or even most, of our farmers' income problems. But the Sea-ay will provide real increases in income over what would have been possible without it. And these ncreases will be cumulative over many years.

The United States Department of Agriculture has calculated that the costs of moving wheat om Duluth, Minnesota, to Rotterdam, Netherlands, will be 12 cents a bushel less by the Seaway han by a former route. Similar savings may be made on costs of exporting corn and soybeans.

Exact figures on future costs cannot be given, since ocean freight rates rise and fall with hanges in demand for shipping space.

The benefit of the cost cutting will probably be split in three ways: (1) it will tend to lift rices to producers, (2) it will increase the volume of grain that can be sold for export and (3) some f the savings will be passed on to foreign consumers in the form of lower prices.

Farmers in Illinois and adjoining areas will receive most of the benefits accruing to producers f corn and soybeans.

The benefits of lower shipping costs for wheat will be divided between producers in the United tates and those in Canada. Both will use the Seaway. The United States and Canada are the two argest exporters of wheat.

Early estimates were that 40 to 45 million bushels of grain from the United States and Canada ould be exported through the Seaway this year. Actual shipments may be much larger. By March 1, ookings had been made to ship 25 million bushels before July 1.

The Seaway will be open for about eight months of the year. The route will be frozen ov for about four months each winter.

The Seaway will bring some supplies to midwest farmers at lower costs than would have be possible without it. Examples are barbed wire and other steel products from foreign mills and factorie

The Seaway will provide a strong stimulus to industrial development in the midwest. Chica and other Great Lakes cities are now ocean ports. Cities like St. Louis, Moline on the Mississip River and Peoria and LaSalle on the Illinois River have cheap water transportation to the Great Lak ports and thus to most of the world's great markets.

Industrial development in the midwest will mean more nearby consumers for meat, milk, eg and other farm products. It will also make more off-farm employment opportunities for our rur people.

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FOR IMMEDIATE RELEASE

Federal Programs Boost Milk Consumption in Illinois Schools

URBANA--Illinois student milk consumption under the National School Lunch Program and the Special School Milk Program reached a record high in the 1958-59 school year--averaging 30.3 quarts of milk per student for the year.

Robert Jacobson, University of Illinois milk marketing specialist, says most of the increase is due to successful expansion of the Special Milk Program. This program has nearly doubled student milk consumption in Illinois since it was started in 1954.

The school milk program goal is 45 quarts of milk per student per year. Last year 28 of the 102 counties in Illinois met this goal, and 32 counties had milk available for every student in the county.

The School Lunch Program pays five cents toward the cost of each student lunch, providing each student with half a pint of milk. The Special Milk Program pays three cents of the cost for each half pint of milk students drink in schools under the program and four cents a half pint if the school also participates in the School Lunch Program.

The school milk program is available to all public, private and parochial grade schools and high schools in Illinois.

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FOR IMMEDIATE RELEASE

Try Daily Rotational Grazing for Dairy Herd

URBANA--Try daily rotational grazing this summer if you want to graze more cows on each acre of pasture.

All you need is an electric fence charger, barbed wire, insulators and posts, says Leo R. Fryman, extension dairy specialist at the University of Illinois College of Agriculture.

Here is how it works: Divide your pasture field into long, narrow strips about the size your herd will graze off in four or five days. Then, by using cross wires, allow the herd to have new forage each day. A stocking rate of about 50 cows to each acre of fresh area daily is about right. Let the cows back-graze for not more than four or five days before moving them to a new strip.

Under such an intensive grazing program, the droppings must be spread. An ordinary harrow can be used for this purpose. Some dairymen report excellent results from using a piece of woven wire under a harrow with the teeth set in vertical position.

When this method of grazing is used, it is not uncommon to produce enough forage to carry two or even more dairy cows on each acre of pasture. To the herd owner, this means more milk produced on each acre used to grow pasture. The result is a higher net income for each acre in the farm.

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5/18/59

FOR IMMEDIATE RELEASE

Fungicides Control Black Spot on Roses

URBANA--Phaltan and maneb are two names rose growers will want to remember this summer. Proper use of these fungicides will check black spot on roses.

Black spot is a fungus disease that causes unsightly dark spots on rose leaves. Infected leaves later turn yellow and drop off. Loss of leaves reduces plant vigor and increases the danger of winter-killing.

M. P. Britton, University of Illinois extension plant pathologist, says people usually fail to control black spot simply because they wait too long to start treatment.

Britton recommends using phaltan at the rate of two tablespoons of wettable powder in a gallon of water, or one tablespoon of 70 percent maneb wettable powder in a gallon of water. Dusts containing phaltan or maneb are also satisfactory.

Rose growers should begin to spray for black spot as soon as possible. The spraying should be repeated every 7 to 10 days throughout the summer.

H. B. Petty, Illinois Natural History Survey entomologist, adds that combination sprays that kill insects as well as fungus spores work well on roses.

Trials at the United States Department of Agriculture's Beltsville Research Center show that the miticides Aramite and malathion plus the insecticides DDT and lindane hold their insect-killing powder when mixed with fungicides.

Many general-purpose rose dusts contain both fungicides and insecticides, Petty points out. He recommends the combination materials for general use.

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5/18/59

FOR IMMEDIATE RELEASE

UI Research Improving Quality Factors in Tomatoes

URBANA--A bright red color, resistance to cracking, high vitamin content, disease resistance, a firm flesh and a tangy, pleasing flavor. These characteristics, of course, are highly desirable in tomatoes. But no variety can boast of having all of them--and not many can boast of having even a few!

Horticultural researchers, though, are concentrating effort on developing new tomato varieties with as many of these characteristics as possible. One of the leaders in this field is the University of Illinois. Coordinating the study here is R. W. Hepler, research associate.

Hepler explains that cracking is one of the major problems facing both commercial growers and home gardeners. Caused by changes in soil moisture content, cracking occurs most often after a rain. The fruit actually cracks or splits open, allowing molds to develop within the cracks and fruit flies to lay eggs inside. In addition, cracking detracts from the fruit's appearance and off-flavors may develop.

Cracked tomatoes bring an extremely low price or cannot be sold at all. To a tomato grower, this is sometimes disastrous. For example, last summer's frequent rains in Illinois created conditions that were extremely conducive to cracking.

Hepler reports that on some experimental plots as much as 75 percent of the crop in one picking was lost because of cracking.

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Although these were the only fields where exact records were kept, he estimates that some growers suffered just as much damage.

Since cracking cannot be cured, it must be prevented by developing crack-resistant varieties. Three such varieties are now in use.

Work in developing other crack-resistant varieties has been slow. Part of the reason is lack of desirable environmental conditions in research plots every year. Plant breeders have not been able to consistently reproduce weather conditions that favor cracking so that they could test varieties for resistance. But Hepler recently designed a vacuum-soaking method that determines whether or not tomatoes will resist cracking. This method should speed progress in developing more crack-resistant varieties at both the UI and other institutions.

Tomato color is another factor Hepler and his associates are studying. Color is important from the standpoint of both appearance and vitamin content. Although a bright red color is most appealing, certain yellowish-red tomatoes, such as the variety Caro-red, actually have more pro vitamin A content.

Why? The normal red tomato contains two pigments: a red pigment called lycopene and a yellow pigment called beta-carotene. The ratio of lycopene to beta-carotene determines the fruit color. Lycopene has no vitamin activity, but beta-carotene, the yellow pigment, is the precursor of vitamin A.

So, to develop a tomato with a brighter or deeper red color and also to increase the pro vitamin A content, Illinois workers are attempting to develop a variety with double the normal pigment content. The additional lycopene would give a brighter red color, and the additional beta-carotene would increase the vitamin A content.

PAC-cm
5/18/59

FOR IMMEDIATE RELEASE

Farm Advisers Attend Marketing Workshop

URBANA--Twenty-one Illinois county farm advisers are making an intensive study of agricultural marketing problems this week in a special workshop on the University of Illinois campus. This special short course is designed to give farm advisers a clearer understanding of marketing and enable them to better serve farmers from their counties.

The five-day workshop will cover these topics: size and functions of markets and pricing systems; market organizations, margins, cooperation and merchandising; livestock and poultry marketing; grain marketing; dairy marketing; fruit and vegetable marketing; and wholesale and retail distribution.

University of Illinois agricultural economists serving as instructors include T. A. Hieronymus, R. J. Mutti, R. W. Bartlett, J. R. Roush, R. A. Kelly, G. M. England, E. E. Broadbent and C. P. Schumaier.

Farm advisers attending from this area include:

(Editor: Please fill in from attached list.)

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5/18/59
NO

Farm Advisers Attending Marketing Workshop

Arlin Obst, assistant farm adviser, Iroquois county, Watseka

Earl Bantz, Champaign county farm adviser, Champaign

Paul Wilson, Livingston county farm adviser, Pontiac

H. D. McLaughlin, Marshall-Putnam county farm adviser, Henry

H. M. Wendler, Pike county farm adviser, Pittsfield

A. J. Mullen, Rock Island county farm adviser, Moline

S. E. Myers, Adams county farm adviser, Quincy

George A. Trull, Morgan county farm adviser, Jacksonville

Don O. Lee, Jefferson county farm adviser, Mt. Vernon

Alexander Harris, assistant farm adviser, Vermilion county, Danville

Fred Painter, LaSalle county farm adviser, Ottawa

J. R. Strubinger, Massac county farm adviser, Metropolis

O. W. Hertz, Vermilion county farm adviser, Danville

W. D. Smith, Washington county farm adviser, Nashville

H. D. Cruthis, DeWitt county farm adviser, Clinton

A. B. Rowand, Ford county farm adviser, Melvin

H. K. Ross, Jo Daviess county farm adviser, Elizabeth

Wm. McAllister, assistant farm adviser, Stephenson county, Freeport

Glen Sons, Shelby county farm adviser, Shelbyville

R. E. Apple, Jasper county farm adviser, Newton

R. F. Long, Jersey county farm adviser, Jerseyville

FOR IMMEDIATE RELEASE

Receive Grant for Nuclear Technology Equipment

URBANA--The Atomic Energy Commission has made two grants totaling $19,000 to the University of Illinois College of Veterinary Medicine for acquisition of nuclear technology equipment.

Dean C. A. Brandly stated today that this grant would make possible the teaching of radio-physiology as applied to the life sciences in the Veterinary Medicine training program. The course will be offered to second-year students in the professional curriculum of the college and others interested in animal research.

Professors E. F. Reber and John P. Manning will teach the course.

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5/18/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Annuals in Your Garden

by C. E. Ackerman
Floriculture Specialist, University of Illinois

URBANA--Some of the most attractive flowers used for home beautification are the colorful annuals. They are valued not only for their own beauty, but for the beauty they develop in the scenes in which they are a part.

Color, form and texture are the characteristics in plants and flowers that produce pleasing effects. Garden composition is largely a matter of arranging and combining these characteristics to form attractive patterns.

To produce a harmonious effect, use flowers in which no more than two or three colors predominate at one time. In other words, strive for simplicity in color.

Use form to achieve horizontal and vertical lines. Use billowy patterns to express rhythm, harmony and balance. Use the line form of plants to accent, define or subdue other parts of the garden or landscape scene.

Annuals are generally classed in three form groups. The tall species or varieties, such as delphinium, lilies and giant marigolds, are called background forms. Medium-sized species are called the middleground forms. Examples are phlox, zinnias, snapdragons, marigolds and others. And short varieties, such as sweet alyssum, are called foreground forms.

The medium-sized species make up the body of the garden. Foreground and background flowers are used to set off the middleground.

Texture is used to produce unity of effect. Fine-textured plants, such as alyssum or bleeding heart, give an effect of nearness. Coarse-textured plants, such as hollyhocks, give the effect of distance.

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Annuals have other uses in the garden too. They can be used to decorate and cover bare areas where perennials have been killed. Or they can brighten dull areas.

Annuals need only a moderate amount of care. Most of them will grow well in a sunny location, and they will grow in all types of garden soils if drainage is adequate and if the soil is fertile. Applying suitable fertilizers will help to improve less fertile soils.

If the soil in your garden is heavy clay, mix some coarse sand and organic matter into the top six inches to help make it mellow. When the soil becomes dry during the growing season, slowly apply enough water to wet it to a depth of six inches.

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5/19/59

THIS WEEK . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

Early-Weaned Lambs

Last year sheep researcher Jack Lewis weaned two lots of lambs nearly two months sooner than usual. One lot was fed in drylot, and one lot was fed on clover pasture. These early-weaned lambs did as well as the unweaned groups, naturally taking a little more feed. A third way of handling the lambs was feeding them in drylot, but bringing the ewes in from pasture once a day for the lambs to nurse. In all three lots, internal parasite control was excellent.

Jack is repeating this lamb management study this year, using younger lambs that weigh less than 50 pounds at weaning time. This management system may prove helpful to the producer who has failed to market heavy lambs early because of parasite troubles.

New Cattle

Twenty head of yearling Hereford calves from Texas, weighing a little under 600 pounds, are now on the Station getting used to the southern Illinois climate, pastures and people. The cattle are framy but thin and should make good gains on our irrigated pasture, where we plan to stock them at the rate of two per acre.

Bob Webb, Station superintendent, says they are still grazing western style--on the run, moving back and forth across the pasture rapidly and biting grass as they go. But here they'll have to get over that habit, because they'll be on pastures that are only 2 1/2 acres in size.

Now, if you think cattle are cheap, take a look at these figures: The calves cost us a little over 34 cents a pound on Texas weights. They're sure going to have to gain like sam hill this summer.

Lamb Pool Dates

Lamb pool dates at Dixon Springs will be June 16, July 17, August 7, September 11 and November 6.

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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Renew Grant for Further Study on Irradiated Food

URBANA--The University of Illinois College of Veterinary Medicine has received renewal of a contract for $27,000 from the Office of the Surgeon General to continue its study on the wholesomeness of irradiated food.

For the past three years, veterinary scientists have been studying the effects of feeding irradiated beef to dogs. Studies to date show no apparent effect on the content of hemoglobin, red blood cells, white blood cells or the differential white blood cell count.

Another study is being carried out in which dogs are fed irradiated flour after it is ground into meal and baked. One of the early practical applications of this study may be the irradiating of dry dog foods to prevent insect infestation.

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5/21/59

FOR IMMEDIATE RELEASE

Maneb or Zineb Controls Tomato Diseases

URBANA--Home gardeners can lick most of the tomato disease problems in their gardens this year with a maneb or zineb fungicide.

M. P. Britton, University of Illinois extension plant pathologist, says it would be a good idea to have one of these fungicides on hand to use this season.

Early blight, septoria leaf spot and anthracnose are three tomato diseases that usually give Illinois gardeners trouble. Late blight also causes trouble during some seasons.

Maneb or zineb will control all four of these tomato diseases, but neither one will control bacterial spot.

Britton recommends using maneb 70 percent wettable powder at the rate of one level tablespoon in a gallon of water, or one and one-third tablespoons of zineb 65 percent wettable powder in a gallon of water. Sprays are usually better than dusts.

Start spraying when the first flower cluster blooms. Continue the spray every week to 10 days until the fruit is ripe. Be sure to cover the entire plant.

Unlike an insect-killing spray, a fungicide must cover every exposed spot on a plant to give complete control, Britton cautions. Insects crawl around and touch a spray-covered area even if the whole plant is not covered. But if a fungus spore lands on an unsprayed area, infection can begin on the spot.

Either commercial maneb or zineb fungicides or general-purpose garden dusts containing these fungicides are suitable for use on tomatoes.

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5/21/59

FOR IMMEDIATE RELEASE

Recognize Accident Hazards on the Farm

URBANA--One of the first things in farm safety is to recognize hazards and then do something about them, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Physical hazards are those resulting from cluttered buildings and equipment. For example, rubbish that accumulates in and out of buildings, faulty flues, overloaded electrical wiring and tractors stored in hay barns are first-class hazards.

Certain machines and tools present hazards because of their design and use. Examples are axes, circular saws, disc harrows, mowers, corn pickers and tractors. Certain practices are also hazardous, such as starting fires with gasoline, refueling a tractor while it is running or hot, cleaning or adjusting machines without stopping the power units and allowing extra riders on machines.

Leaving equipment scattered about the farmstead creates a hazard not only for people, but also for animals.

The farmer who handles, or permits his employees or members of his family to handle, modern farm machinery without knowing how to operate it safely or without using guards and shields on all moving parts, is neglecting his duties as an employer or parent.

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5/21/59

FOR IMMEDIATE RELEASE

Forecast Lower 1959 Net Farm Incomes

URBANA--American farmers can expect their total 1959 net farm incomes to drop about $1 billion below last year, according to G. L. Jordan, University of Illinois agricultural economist. The expected total of around $12.1 billion would be about $1 billion above 1957, however.

This decline will be due largely to increased costs and reduced Soil Bank payments, Jordan pointed out. By mid-March, prices paid by farmers for production items, interest, taxes and wage rates had climbed 3 percent above a year ago to hit the highest peak on record. Farm costs are expected to rise further in the coming year.

Farmers are paying higher wage rates to hired labor this spring. Machinery prices are rising. Prices of steel and labor that go into farm machinery are more likely to rise than decline. Feeder and stocker cattle prices are also expected to remain high. Fertilizer prices are not expected to change much. Building costs may rise a little. Interest rates will likely be higher, and tax payments on farm real and personal property are also expected to go up about 5 percent over 1958.

On the other hand, demand for farm products should improve this year. Our major foreign customers have built up their dollar reserves enough to increase their buying. Sales under Public Law 480, which provides for sales in foreign currency, are also likely to increase.

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In this country, consumer spending will probably increase about 7 percent. However, all farm products will not benefit equally from this increase, Jordan cautioned. Stepped-up marketings of meat animals, poultry and eggs suggest lower prices. Eggs have recently hit the lowest price since June 1944. Hog prices in April were the lowest for that month since 1946. But some rise in cash receipts from cattle and dairy products seems likely.

The corn price support of $1.12 a bushel assures a satisfactory income if the weather makes a large harvest possible, Jordan pointed out. With 10 million more grain-consuming animals on farms, feed grains are being consumed at a very heavy rate. It is likely that corn will have to be taken out of CCC stocks before the 1959 crop becomes available, he reported.

Wheat farmers face the prospects of lower incomes in 1959. Prices won't go above the $1.81 support price except to draw necessary supplies out of CCC stocks. The 1959 winter wheat crop has been forecast at 957 million bushels, 19 percent below last year's record harvest.

Soybean prices are expected to stay near the loan price until new beans become available. The carryover of 1958 beans may be as small as 50,000 bushels because of the great volume that has been processed. Meal demand has held up well, considering the supply, and oil prices have been supported by export prospects.

Jordan spoke before the annual Illinois PCA Fieldmen's Conference held on the University of Illinois campus this past week.

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5/21/59

for dailies

Farm News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Vitamin C Helps Cut Summer Egg Breakage

URBANA--Research work has shown that adding a small amount of vitamin C (ascorbic acid) to the feed of laying hens in summer results in fewer broken and cracked eggs.

This research at Colorado State University shows that as little as one ounce of ascorbic acid in a ton of feed will increase egg-shell thickness and cut breakage losses in half.

In reporting this research, S. F. Ridlen, extension poultry specialist at the University of Illinois, points out that hot weather normally causes hens to slow down their bodily activity. They eat less feed and so they have less calcium in their systems to use for egg-shell formation. Thin egg shells result in high breakage losses.

Egg breakage now causes more than $1 million loss in Illinois each year, Ridlen says. This new treatment, if successful, can save this state's egg producers much extra loss.

There is no need to put more than one ounce of vitamin C in a ton of feed, the research shows. Too much ascorbic acid can have harmful effects on the birds. And there's no need to feed additional ascorbic acid during winter. Egg shells normally are strong enough in winter.

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5/25/59

FOR IMMEDIATE RELEASE

Dairy Scientists Meet at UI June 15-17

URBANA--Welcome signs are being posted for members of the American Dairy Association as they gather for their 54th annual meeting at the University of Illinois June 15-17.

This year about 1,500 to 1,800 persons are expected to attend, according to G. W. Salisbury, head of the host university's Department of Dairy Science. More than 200 scientific papers will be presented during five special sessions.

Highlighting the meeting will be an address of welcome by UI President David D. Henry and presentation of the association's awards for outstanding research, teaching and extension activities.

The association was founded on the Champaign-Urbana campus on July 17, 1906, by the late Prof. W. J. Fraser, then head of the Department of Dairy Husbandry. Charter membership was 19, six of whom were from the University of Illinois, including Prof. Fraser and the late Dean Eugene Davenport.

Founded to promote teaching and the application of science to one of the nation's basic food industries, the association is now the world's leading scientific society in the dairy field. It now numbers more than 2,400 members in the United States and Canada, in addition to a non-member subscriber list of more than 2,000 others to its official publication, The Journal of Dairy Science.

The United Kingdom and Japan lead in numbers of non-member Journal subscriptions, but there is a substantial mailing behind the

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Iron Curtain, Salisbury reports. E. E. Herreid, UI professor of dairy technology, is Journal editor.

The association conducts its annual meeting in June on the campus of one of the nation's land-grant universities. The first and 25th meetings were held at the University of Illinois.

The UI now has more recipients of the association's scientific awards than any other American university. Profs. Stewart L. Tuckey, Paul H. Tracy, Herreid and Salisbury are all holders of the Borden Award for their achievements in dairy science.

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5/25/59

FOR IMMEDIATE RELEASE

Greenview Boy Wins Junior Chicken Contest

URBANA--Roger Elliott, 13, Greenview, has been named winner of the 10th annual Illinois Junior Chicken-of-Tomorrow Contest for 1959.

Elliott was given his first-place trophy during final ceremonies at Lincoln on Saturday, May 23. He was also named winner of the central section contest with his 10-bird entry, for which he was given a cash award and a ribbon.

Other state winners include Dale Meisinger, 14, Lemont, second place; Donald Deverman, 17, Greenview, third; Roy Bohlander, 12, Morris, fourth; and James Kemmerer, 15, Plainfield, fifth.

These boys were named winners over 101 entries in the contest, with 5,050 chicks entered (50 cockerels in each entry). A total of 85 boys and girls made the entries from 19 different counties, and 20 different hatcheries supplied the contest chicks. There were 17 entries from Logan county.

Dale Meisinger entered the top group of birds in the northern section contest, and Darrell Brown, 15, Bingham, had the winning entry in the southern section contest. The five first-place winners in each of the three sections won a cash award and a ribbon. In addition, 25 statewide cash awards were given on the basis of entry quality, and a certificate of achievement was given to each contestant who completed the contest.

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In addition to Meisinger, Bohlander and Kemmerer, Dennis and William Rab, both of Monee, were northern section winners; Elliott, Deverman, and Larry, Terry and Gary Schieferdecker, all of Rushville, were central section winners; and Darrell Brown was the only southern section winner.

Vern Almquist, Armour Creameries, Chicago, and S. F. Ridlen, extension poultry specialist at the University of Illinois College of Agriculture, were the judges. The birds were scored on conformation, condition, weight, defects and disqualifications.

Statewide cash award winners included Georgia Bergman, Palatine; Fred Shelton, Emington; Twila Kay Miller, Lincoln; Dale Meisinger, Lemont; James Schafer, Shelbyville; David and Billy DeHart, Greenview; Donald Deverman, Greenview; John Kilhoffer, Jr., Buffalo; Dennis Kurtz, Lincoln; Carl Awe, Elkhart; Kay and Rita Winner, Beardstown; William Neff, Chandlerville; Jerry Schieferdecker, Rushville; Don Nordsiek, Beardstown; Richard Scheer, Beardstown; Joyce Launer, Beardstown; Judith Marie Schafer, Martin Herter, Mickey Reed and Gary Moore, all of Springfield.

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5/25/59

FOR IMMEDIATE RELEASE

UI Offers New Horticulture Curriculum

URBANA--A completely revised and expanded curriculum in floriculture and ornamental horticulture will be offered this fall by the University of Illinois.

This curriculum, explains C. J. Birkeland, head, Department of Horticulture, provides a well-rounded education for a career in the rapidly growing florist and nursery industries.

For example, excellent training will be offered for flower-shop employment and ownership. Top-notch flower designers are much in demand and receive high salaries.

Training for nursery and turf management will also be offered. This training will qualify persons for work as greenskeepers or turf consultants at parks, golf courses, playing fields or for home lawns.

Many career opportunities in greenhouse management and production of florist crops await young men and women. The new curriculum also offers training in this area. Examples of florist crops are cut flowers, flowering pot plants, foliage plants and bedding and vegetable plants.

Here are several of the courses that students enrolled in this curriculum may take: bedding and foliage plants, commercial florist crops, floral design, nursery management, student research, ornamental gardening and nursery and flower shop management. Elective courses in other areas may also be taken.

For more information on this curriculum, write to 100 Floriculture Building, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

Illinois Leading Producer of Horse-radish

URBANA--The Number 1 producer of horse-radish! That's a title which Illinois claims, and one that many Land o' Lincoln residents are not aware of.

Illinois' production of this unique vegetable that enhances the flavor of meats centers in Madison and St. Clair counties. Norman E. Oebker, University of Illinois vegetable crops specialist, adds that these two counties produce more horse-radish than any other area in the United States.

Playing an important role in Illinois horse-radish production is University of Illinois research. Oebker explains that researchers do not know too much about this crop, so they have established several experimental plots in the Madison-St. Clair counties area. Horse-radish grows well in this locale because the soil is light and the growing season long.

Current studies under way include variety trials, fungicide and insecticide tests, weed control tests and trace-element tests.

Some of the new varieties being tested were developed by Wisconsin plant scientists. They were the first to work out a method for cross-breeding horse-radish. Cross-breeding is difficult because the crop does not normally produce seed. And the seed that is produced does not remain viable very long.

Plant disease researchers are conducting the fungicide tests. They are attempting to develop methods for controlling white rust and brittle root. These two diseases are perhaps the most damaging to horse-radish production.

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Growing Horse-radish Hard Work

Growing horse-radish requires brawn as well as brain. Midway through the growing season each plant is pulled up to strip the secondary roots. Since no machine has been developed for this job, it's strictly a hand operation. A tedious job, it takes one man an entire day to strip one acre.

Stripping is necessary so that the one main root will develop to maximum size and quality. The secondary roots and other trimmings can be sold, but they bring a much lower price than the main root.

UI agricultural engineers are coming to the aid of horse-radish strippers though. They're attempting to develop machines for both stripping and harvesting. In harvesting, the roots are turned up by plowing, but then hand labor must take over for cutting and sorting.

At present most weeds in horse-radish fields are either controlled by cultivation or removed during the stripping operation. However, if and when stripping machines are developed, chemicals will be more practical and economical to use for controlling weeds. For this reason Oebker is now studying chemical weed control in several plots. He reports that so far Randox, Dinitro and Karnex DL look promising.

Economics interest most farmers, and horse-radish economics are no exception. It usually costs eight to ten cents to produce one pound of this crop; right now it is selling for about 16 cents a pound.

At one time horse-radish sold for nearly 75 cents a pound. At that price, many farmers suddenly began growing this crop. But then it didn't take long for the price to slide down to five cents, leaving a lot of farmers holding the bag.

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5/25/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Annual Illinois FFA Convention Slated June 16-18

SPRINGFIELD--More than 1,500 Illinois Future Farmers of America will gather here June 16-18 for the 31st annual State FFA Convention.

These young men will come from every corner of the state as chapter delegates, state officers, award winners, contestants or participants in the many planned activities. The three-day program will feature speaking contests, presentation of special awards, election of 1959-60 state officers, selection of boys to receive the State Farmer degree, business sessions and entertainment.

Convention headquarters will be located in the State Fairgrounds Exposition Building. Presiding over the various sessions will be the 1958-59 state officers. They include Tommy Clark, Catlin, president; Marian Greer, Coulterville, vice-president; V. Gwinner Snyder, Moweaqua, secretary-treasurer; and Gaylen Larson, Leland, reporter.

Future Farmers of America is the official organization of high school boys enrolled in vocational agriculture. In addition, boys who have been enrolled in vocational agriculture can maintain their membership for three years after graduation.

Illinois has nearly 500 chapters in the nation-wide FFA organization. And practically all chapters will send at least two official delegates to the state convention.

The official advisor to the Illinois FFA is H. R. Damish, chief of Illinois agricultural education, Springfield.

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FOR IMMEDIATE RELEASE

Farm Advisers Attend Summer Conference

URBANA--More than 200 Illinois agricultural extension workers will attend the annual summer conference at the University of Illinois this week. Farm advisers and their assistants from all counties in the state will participate. During the three-day session, beginning Tuesday noon, they will hear reports on latest development in all phases of agricultural and veterinary sciences.

Dean Louis B. Howard of the College of Agriculture will welcome extension workers and speak on the topic, "Tremendous Trifles." On Wednesday the group will tour the horticulture research farm, food technology research laboratories and dairy, livestock and agronomy research farms.

The Thursday program will include discussion of economic issues in the farm program by agricultural economics staff members. H. K. Allen, professor of economics in the College of Commerce, will speak on the Illinois tax problem.

W. G. Kammlade, associate director of extension, will close the conference with a report on administrative matters.

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FOR IMMEDIATE RELEASE

Safety Specialists at Allerton Meeting, June 8-11

URBANA--Specialists in farm and home safety from all over the United States will meet at Allerton Park June 8-11 to discuss ways of making their programs more effective.

Occasion is the 14th annual meeting of the Farm Safety Institute. Conference sponsors include the Farm Safety Division of the National Safety Council, the Illinois Rural Safety Council and the University of Illinois.

O. L. Hogsett, extension safety specialist at the UI College of Agriculture, reports that the first session on Monday afternoon, June 8, will be concernedwith more effective communication in rural safety. Members of the staff of the UI Extension Editorial Office will discuss the communications process, the channel of writing for safety information and more effective photography in farm safety.

Tuesday's program will cover improving presentations with visual aids, a review of the corn-picker safety campaign for next fall and technical presentations on agricultural chemicals and recreation safety.

On Wednesday the specialists will conduct a workshop on developing a communication program for safety education. The conference will wind up on Thursday with reports on the workshop sessions and planning for next year's program of work.

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RAJ:cm
5/27/59

FOR IMMEDIATE RELEASE

Cold-Soak Treatment Preserves Fence Posts

URBANA--Latest annual inspection of treated and untreated fence posts in research studies at the University of Illinois show the value of the cold-soak treatment.

C. S. Walters and K. R. Peterson, forest products use researchers at the UI College of Agriculture, report that not one treated softwood post has failed in eight years of service at the University's Dixon Springs Experiment Station in southern Illinois.

Seventy percent of the treated softwoods in service at the Station were sound, and the other 30 percent were partly decayed but serviceable, Walters and Peterson report.

Among the treated hardwood posts there, 50 percent remained sound, 43 percent were partly decayed but serviceable and 7 percent had failed. The only failures were in posts treated with 100-SS solution, a new fabric preservative, and those treated by brush applications or by quick dips in the preservative solution.

In contrast, not one of the untreated softwood posts was sound. After an average service age of 44 months, 24 percent were partly decayed but serviceable, and 76 percent had failed. Of the untreated hardwood posts, one out of 51 posts in the test was still sound, 20 percent were partly decayed but serviceable and 78 percent had failed.

The researchers found similar results among the posts under study at Sinnissippi Forest in Ogle county.

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There, 51 percent of the 580 treated softwood posts in service were still sound, 43 percent were decayed but serviceable and 6 percent had failed.

Forty-two percent of the treated hardwood posts were still sound, 48 percent were partly decayed but serviceable and 10 percent had failed. In contrast, none of the 77 untreated hardwood posts was still sound, 30 percent were partly decayed and 70 percent had failed. Among the untreated softwood posts, only one of the 43 control posts was still sound, 35 percent were partly decayed and 63 percent had failed.

Average age of treated posts still in service at Sinnissippi Forest was about 13 years compared with only 5 years for untreated posts that had failed.

For full information on the cold-soak treatment, ask your county farm adviser for a copy of UI Circular 636, "Preserving Posts With Penta."

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RAJ:cm
5/27/59

FOR IMMEDIATE RELEASE

New Gadgets Help Speed Haymaking Process

URBANA--This wet spring has stirred up farmer interest in ways to make hay faster.

And agricultural researchers and equipment companies have been trying to find ways to help get better hay in the mows and stacks. But the biggest help yet found in putting up high-quality hay is a good drying day, says J. H. Ramser, agricultural engineer at the University of Illinois College of Agriculture.

One of the best of the new developments, Ramser believes, is the mechanical hay crusher. This machine splits the stems of the plants lengthwise so that they dry as fast as the leaves. The result is less loss of leaves when the hay is windrowed and baled.

Tests at the University's Urbana Experiment Station this summer will compare the relative efficiency of three different makes of hay crushers in making alfalfa hay. Results of these tests will be available next fall.

On a good drying day, hay mowed and crushed in the morning can usually be baled by late afternoon, Ramser says. But most "hay in a day" systems now being talked about use some sort of artificial drying method as insurance against unfavorable drying weather or rain.

Each farmer who makes hay must decide for himself whether his needs can justify the cost of a "hay in a day" system that uses artificial drying methods, Ramser says. One man with a crusher can mow and condition up to 20 acres of alfalfa a day and bale it the next.

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Capacity of some of the "hay in a day" methods is much less than that, although they do eliminate some of the risk of bad weather.

One of the newest one-man machanical hay-making systems uses an ejector attachment on the baler that shoots half-sized bales into a high-sided wagon. An elevator and kick-off conveyor then loads them into the barn. Since the bales fall in an unsorted pile in the barn, a barn drying system could circulate air through them for barn curing when it would not work on neatly stacked full-sized bales.

Another way for one man to handle hay completely by machine is with a field chopper. This system has the advantages of saving handling time and producing higher quality hay than any other system. If chopped hay is handled green, it also requires a forced-air drying system of some type. Chopped hay stored in self-feeders also works very well into some livestock feeding operations.

You can count on making hay with less labor by using some of the new machinery. But be sure to weigh the costs against the benefits the new system will have for your particular operation before you change your old way of making hay, Ramser suggests.

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RAJ:cm
5/27/59

ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS
MAY 27, 1959

IS THE BUILD-UP OF CORN SURPLUS NEAR AN END?

There is a strong possibility that during the past two years corn production and use have been brought into balance and that the long accumulation of stocks by the government under price support programs is at an end. Whether or not this is true depends on how large corn yields of the future will be.

In 1957 the corn crop was the third largest on record. Increase in carryover totaled only 48 million bushels. The 1958 corn crop was 378 million bushels larger than the 1957 crop and by far the largest in history. Production of other feed grains (oats, barley and grain sorghums) was also substantially larger than in the preceding year and of record size.

Disappearance from the 1958 crop cannot be accurately forecast, but on the basis of the first six months it now looks as if the 3.8 billion-bushel corn crop will be used up and the increase in total feed-grain carryover will be 2.5 to 5.0 million tons. Production and use are nearly in balance in spite of the huge increase in production.

The hog-corn ratio is favorable and therefore conducive to further increase in hog numbers. The price of corn is above next year's loan. The utilization base is not overexpanded in terms of current support rates for corn.

The United States is now in a position to use 145 to 150 million tons of feed grains and a 3.7 billion-bushel corn crop. Will that much be produced at a $1.12 support for corn?

For the last 11 years national average corn yields per acre have been as follows:

1948	42.5	1954	38.8
1949	37.8	1955	40.6
1950	37.6	1956	45.7
1951	36.2	1957	47.1
1952	40.7	1958	51.7
1953	39.9		

(Continued)

How much of the increase during the past three years has been the result of improved technology and how much has been the result of unusually favorable weather? One extreme says that all bu last year was the result of technological improvement and that 47.5 bushels is now a normal yield The other says that the last three years are the result of favorable weather, that there is no real in creasing trend in corn yields and that the 1948-55 average of 39.3 bushels is what we should expect

On the basis of March 1 planting intentions, a yield of 47.5 bushels will produce 4.0 bil lion bushels of corn, whereas a yield of 39.3 bushels will produce 3.3 billion. Without any ver good basis, I think a normal yield is 43 bushels per acre. This would produce 3.6 billion bushels substantially less than the amount being used this year.

T. A. Hieronymus
Department of Agricultural Economic

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK . . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate).

Weather, wet or dry, and we've had both this spring at Dixon Springs, is always good for an opening to conversation, correspondence or a column. Well, anyway, nearly five inches of rainfall in May after a dry April has been slowing field work, but pastures have been booming.

New Bulletin On Irrigation

Fresh from the printers is Bulletin 640, "Experimental Irrigation of Ladino Clover-Grass Pasture." It is a 30-page discourse on the methods and results of seven years of pasture irrigation conducted at Dixon Springs. From reading this publication we know that pastures need a whale of a lot of water to keep booming. Even this year's nearly five inches of rain during May falls short of the water put on by irrigation or by rain during June, July and August for each of the seven years of the irrigation experiment. From both rainfall and irrigation, the pastures were drenched with over seven inches in each of the three months. During the seven years an average of nearly 14 inches of irrigation water was applied and over 20 inches fell as rain during these three months.

What Irrigation Accomplished

1. Produced more dry-matter forage - 1 1/4 tons more an acre.

2. Provided higher animal carrying power - increased grazing 71 percent, or 111 more animal-unit days.

3. Maintained ladino clover in the stand.

4. Increased animal gains each year by an average of 115 pounds an acre.

If you want more information, write for Bulletin 640. You'll be able to recognize it in the bulletin racks by the cover picture of Lee Gard, Station soil

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and water researcher, kneeling knee deep in clover with a shower from the irrigation sprinklers falling on his back.

Extraordinary!

Uncommonly high gains were made by both yearling and two-year-old Station cattle on self-fed, complete pelleted rations last winter. A lot of yearling cattle on a ration of 40 percent hay and 60 percent concentrate gained 3 1/3 pounds a head daily during a 135-day feed. Not to be outdone, a lot of two-year-old cattle gained at the same rate on the same ration.

Balance of Roughage to Concentrate

Whether a ration of 40 percent roughage is most desirable is questionable. But this we did learn last winter: Both yearlings and two-year-olds gained slightly less when the roughage part of the pellets was cut to 20 percent and the concentrate was increased to 80 percent. Station calves still on feed are showing the same trend. The 40 percent roughage pellet is producing more gain than the 20 percent roughage pellet.

Wool Pool

Today (May 26), wool is arriving at the Station in mountainous quantities for the wool pool. We should have a report on the pool next week.

HAC:rm
5/27/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

June-July, 1959

June 4	4-H Lamb Marketing Day, National Stockyards.
June 7	Illinois Purebred Sheep Producers Association Annual Meeting, Field Day and Picnic. Dixon Springs Experiment Station, Robbs.
June 7-11	Illinois Home Bureau Federation Citizenship Conference. University of Illinois, Urbana.
June 9	Agronomy Experiment Station Field Day. West Salem, Edwards County. 1:30 p.m.
June 10	Agronomy Experiment Station Field Day. Newton, Jasper County. 1:30 p.m.
June 10	Illinois Horticultural Society Summer Tour. Eckert Orchard Association, Trobaugh Homestead, Carbondale.
June 12	Agronomy Experiment Station Field Day, Carlinville, Macoupin County. 1:30 p.m.
June 15-17	American Dairy Science Association Annual Meeting. University of Illinois, Urbana.
June 16	Agronomy Experiment Station Field Day. Minonk, Woodford County. 1:30 p.m.
June 16-18	State F.F.A. Convention. Springfield.
June 18	Benton Feeder Pig Sale. Benton.
June 23	State F. F. A. Judging Contests. University of Illinois, Urbana.
June 24	Annual University of Illinois Agronomy Day. Urbana.
June 29	Logan County Swine Herd Improvement Association Field Day. San Jose.
June 29-30	Fertilizer Industry Conference. University of Illinois, Urbana.
June 30	Annual Meeting of Illinois Crop Improvement Association. University of Illinois, Urbana.
July 6	Ford County Swine Herd Improvement Association Field Day. Melvin.
July 9	Dixon Springs Experiment Station Purebred Ram Sale. Robbs.
July 13	State 4-H Judging Contest. University of Illinois, Urbana.

July 14	Agronomy Experiment Station Field Day. Dixon, Lee County, 1:30 p.m.
July 15	Agronomy Experiment Station Field Day. DeKalb, DeKalb County.
July 16	Kaskaskia Swine Herd Improvement Association Field Day. Vandalia.
July 18	Illinois Purebred Sheep Breeders Ram Sale. University of Illinois, Urbana.
July 30	Cambridge Swine Herd Improvement Association Field Day. Cambridge.
July 31	Lawrence County Swine Herd Improvement Association Field Day. Lawrenceville.

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5/27/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Professional Farm Managers Plan Summer Tour

URBANA--Mechanized livestock feeding, minimum tillage, high roughage rations, and appraisal of damages from new highways cutting across farm land will be the major features of the annual summer tour of the Illinois Society of Professional Farm Managers and Rural Appraisers in Knox and Mercer counties on Monday, June 8. University of Illinois trust farm manager Donald G. Smith, who is president of the organization, reports the following tour plans:

Beginning at the Marjorie Doering farm near New Windsor in Mercer county, the group will see a 300-acre farm where the operator feeds out 125 cattle and 600 to 700 hogs each year. Buildings and equipment are arranged to handle automatic feed mixing and grinding.

At the Ward Reynolds farm north of Oneida, visitors will see the successful use of minimum tillage, practical production of certified seed and other practical farming ideas.

After lunch the group will tour the Custer trust farm, where the operator, Leo Hennenfent, is feeding out 175 to 200 head of cattle each year, using a large amount of silage and renovated pastures to cut feeding costs.

The last farm visit will be at the Carl Larsen farm, where professional appraisers will explain their procedure for figuring damages to this property because of a new highway that will run through the farm.

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FOR IMMEDIATE RELEASE

State Law Requires Cutting Noxious Weeds

URBANA--State laws set up penalties for landowners, tenants, railroads, highway authorities and others who do not cut noxious weeds growing on their property, according to N. G. P. Krausz, University of Illinois professor of agricultural law.

Canada thistle, perennial sow thistle, European bindweed, leafy spurge, Russian knapweed, hoary cress, and ragweed within cities and villages are listed as noxious weeds under the law.

Krausz lists these penalty laws that apply to noxious weeds:

Owners of land may be fined up to $300 for not destroying noxious weeds before they reach a seed-bearing stage.

The occupier of land, including tenants, may be fined up to $100 for allowing noxious weeds to go to seed.

Anyone who brings in and spreads noxious weed seeds may be fined up to $100.

Railroads may be fined up to $200 for not destroying noxious weeds on their rights of way.

Highway commissioners are subject to a penalty of up to $50 if they fail to keep weeds mowed prior to seeding, or by September 1 at the latest.

The Illinois seed law establishes another class of weeds as "secondary noxious weeds." These weeds include curled dock, wild garlic, dodder, bull nettle, buckhorn, quackgrass, wild mustard, Johnson grass, ox-eye daisy and wild carrot.

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The seed law prohibits sale of any agricultural seed that contains any noxious weeds. It also prohibits sale of agricultural seed that contains more than the listed tolerances of secondary noxious weeds. These tolerances can be obtained from the Illinois State Department of Agriculture at Springfield.

Non-noxious weeds are not subject to any special laws. However, there may be a liability to a neighbor if large numbers of weeds are left to seed and spread onto a neighbor's farm.

Although most farmers are conscientious about destroying noxious weeds, state legislators felt that the problem was serious enough to provide for weed commissioners to look for and eradicate noxious weeds.

The weed commissioner who finds noxious weeds growing in his township notifies the owner or occupier in writing and suggests methods of eradication. If after such notice the weeds are not eradicated, the commissioner is legally authorized to enter the area and destroy the weeds. Costs are paid by the landowner.

However, the commissioner is not allowed to spend more than $25 on any single tract of land without approval of the township supervisor. The weed commissioner also can start proceedings to have a fine levied against the landowner who fails to cut weeds.

The weed commissioner is appointed for a two-year term by the board of town auditors or by county commissioners in counties that are not organized on a township basis. His maximum pay is $6 a day for the days he actually spends in performing the duties of his office.

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HDG:cm
6/1/59

FOR IMMEDIATE RELEASE

Test Station System Providing Meat-Type Boars

URBANA--Illinois swine growers will have their pick from more than 750 tested boars next fall.

And these boars will give Illinois swine herds another big boost toward breeding the best types of market pigs and breeding stock that growers and buyers are looking for these days.

Swine growers in this state are fortunate that these 750 boars are being performance-tested this summer in the 15 test stations sponsored by the Illinois Swine Herd Improvement Association. Interested growers are invited to visit these stations and see what is going on there.

Spring pigs at the stations are being tested for average daily gain, feed efficiency, backfat thickness and other highly desirable meat-type traits, says T. R. Greathouse, extension livestock specialist at the University of Illinois College of Agriculture. He is in charge of analyzing the records from all the stations.

Here's how each test station operates:

Each breeder selects from his herd two boars and a littermate barrow to be tested at the station. These pigs are started on test at 60 pounds, and records are kept on each until he weighs 200 pounds. During the testing period weights are recorded, feed consumption calculated, weight for age determined and backfat thickness measured.

Barrows are slaughtered when they reach 200 pounds, and each carcass is measured to find the meat-type characteristics, such as backfat thickness, percent of lean cuts, carcass length, loin eye area and weight of primal cuts.

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Records stop on the boars when they reach 200 pounds, and they are held for sale later in the fall. At the sale the buyer has the advantage of knowing exactly how the litter-mate barrow or barrows of each boar performed on the same feed and management as his brother. These complete records on meat-type characteristics provide the pay-off for the testing system, Greathouse points out.

From the information available at sale on each litter-mate barrow, swine breeder buyers will have a chance to select directly for meat-type characteristics, such as larger loin-eye area, higher percentage of lean cuts, adequate carcass length and moderate fat covering.

Some of these characteristics have a high degree of heritability, according to research at the agricultural experiment stations. Averages show that growth rate, economical use of feed and muscling are medium in heritability, while carcass length and fatness are highly heritable from one generation to the next.

How to get this inherited quality into Illinois market hogs has been an increasingly weighty problem with swine growers. The problem has become even more important recently because of the expansion period the hog industry has been going through.

In an effort to solve these problems, some of the growers got together and organized the Illinois Swine Herd Improvement Association several years ago. Its basic purpose is to improve the Illinois swine industry through better selection of superior breeding stock.

To provide the information needed for accurate selection on each available boar, the testing station idea was promoted by the

association. The Forest Testing Station, organized in 1954, was the first one in the United States.

From that start testing has expanded from 191 boars tested at five stations in 1955 to 485 boars tested at 12 stations last year.

Numbers of barrows on test increased from 191 in 1955 to 303 last year. Size of their average loin-eye area has increased from 3.80 to 3.98 square inches, and backfat thickness has decreased from 1.58 to 1.47 inches, Greathouse says. Average carcass length of barrows slaughtered last year was 29.59 inches, and lean cuts averaged 49.71 percent.

Boar performance has shown as much improvement. Average daily gain of the boars has increased from 1.76 to 1.87 pounds, feed conversion ratio has improved, dropping from 336.8 pounds of feed for every 100 pounds of gain to 295.6 pounds, and backfat thickness from 1.37 to 1.21 inches. All of these gains have been made through the selection possible as a result of the test station records.

And one of the biggest gains of all, Greathouse says, has been the fact that the Illinois swine breeders have become conscious of the desirable meat-type characteristics to look for in their breeding stock and have become much better selectors of high-quality pork on the hoof.

One of the biggest advantages Illinois swine growers have is the 15 stations in operation all over the state. Most other states having boar testing programs have only one central station located at the agricultural experiment station at the land-grant college.

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The Illinois system enables many more people to work directly with the problem of improving the quality of hogs going to market by means of better breeding stock.

Each swine testing station has been organized and is operated by a local swine herd improvement association, which is a part of the parent Illinois association. No tax money has gone into this system. The test stations are financed, built and operated by cooperating members of the local association.

The Illinois Swine Herd Improvement Association maintains an office in the Landauer Building at Lincoln. Fred Hoppin, former Logan county farm adviser, is executive secretary of the association.

The University of Illinois cooperates in the program through the work of the extension livestock specialists at the College of Agriculture. In addition to Greathouse, who keeps all the records on the stations and makes the analyses, H. G. Russell serves on the association advisory board, and all the specialists, including G. R. Carlisle and D. E. Walker, help with station organization and annual local association sales.

In addition, field days are held during the summer at the various stations to permit swine growers from the surrounding areas to see how the work is carried on. Anyone with further questions about these stations may write to his nearest station, to the extension livestock specialists at the College of Agriculture in Urbana or to Secretary Hoppin in Lincoln.

Certain performance standards have been set up by the association to recognize litters that have good performance records. A litter

that meets these minimum standard requirements is presented with a "Certificate of Merit."

To qualify for this certificate, boars must (1) come from a litter that weighed at least 320 pounds (sow litter) or 275 pounds (gilt litter) at adjusted weaning weight of 56 days, (2) reach 200 pounds in weight before the age of 180 days, (3) need less than 350 pounds of feed for 100 pounds of gain while on test and (4) have less than 1.3 inches of backfat at an adjusted 200-pound weight.

Barrow littermates, in addition to meeting the first three requirements for boars, must also meet these carcass qualification standards for 180- to 200-pound weight: (1) carcass length between 28.5 and 3.10 inches, (2) backfat thickness between 1.0 and 1.6 inches and (3) loin-eye area of at least 3.5 square inches.

More than 80 litters met these minimum requirements at 10 test stations last year. Many other litters had outstanding records for three of the traits tested, but failure to meet the requirements for the other trait tested prevented them from qualifying for the award.

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RAJ:cm
6/1/59

FOR IMMEDIATE RELEASE

Set Animal Reproduction Symposium for June 18-20

URBANA--More than 300 researchers in the field of animal reproduction are expected to discuss their mutual problems at the University of Illinois June 18-20.

They will be attending the fourth biennial Symposium on Animal Reproduction at Garner House, men's dormitory and meeting rooms on the Urbana campus. Theme of the meeting will be "The Effect of Germ Cell Damage on Animal Reproduction."

Some of the topics to be discussed on the program will be genetic causes of faulty germ cells and low fertility, relation of DNA of sperm cells to fertility, irradiation damage to animals and its effect on their reproductive capacity, normal and faulty fertilization, antigen-antibody reactions in relation to reproduction, effect of energy intake on reproduction in farm animals, temperature and light as factors in reproduction among farm animals and influence of sexual behavior on germ cell output in farm animals.

Visiting speakers will include Drs. J. O. Almquist and E. B. Hale, Pennsylvania State University; Dr. R. H. Dutt, University of Kentucky; Dr. Ivar Johannson, Royal Agricultural College of Sweden; Dr. Seymour Katsh, University of Colorado Medical Center; Dr. Cecilie Leuchtenberger, Children's Cancer Research Foundation, Boston; Dr. R. W. Noyes, Stanford University Medical School; Dr. E. F. Oakberg, Oak Ridge National Laboratory; and Dr. J. T. Reid, Cornell University, New York.

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Local chairman is Dr. N. L. VanDemark, UI Department of Dairy Science. Other University of Illinois members on the program include Drs. Gordon N. Ray, provost; Louis B. Howard, dean of the College of Agriculture; Carl A. Brandly, dean of the College of Veterinary Medicine; and G. W. Salisbury, head of the Department of Dairy Science.

The first such symposium, organized in 1953 at Iowa State College, had an attendance of about 125. In 1955 the meeting was held at Michigan State University, and in 1957 at Colorado State University. Mutual problems in both animal and human reproduction have attracted at each symposium a broad group of people from medical, veterinary, basic research and practical application areas.

Helping to sponsor the event this year is the National Science Foundation, along with the Colleges of Agriculture and Veterinary Medicine of the University of Illinois.

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RAJ:cm
6/1/59

FOR IMMEDIATE RELEASE

Many Illinois Dairy Herds Make Honor Roll

URBANA--More Illinois dairy herds made the honor roll in 1958 than in any previous year.

A total of 836 dairy herds made an average of 400 or more pounds of butterfat and were issued National Honor Roll Certificates by the Purebred Dairy Cattle Association.

According to L. F. Fryman, University of Illinois extension dairy specialist, the highest producing herd on DHIA test in Illinois last year is owned by Robert Busboom of Gifford. This 22-cow herd averaged 12,914 pounds of milk and 599 pounds of butterfat. The average production record for Illinois dairy cows is less than half of this figure.

The second highest producing herd is owned by C. F. Nadelhoffer, Will county. His herd averaged 13,150 pounds of milk and 593 pounds of butterfat. The Nadelhoffer herd was the high-producing herd in the state in 1957.

For the fourth straight year, Russell Ernst, Macon county, took high honors in the Milking Shorthorn competition. His 10 cows averaged 9,308 pounds of milk and 364 pounds of butterfat.

The top Ayrshire herd in Illinois last year is owned by Frank McDonald and son, Princeton. Their 26 cows averaged 10,609 pounds of milk with 435 pounds of butterfat.

Brown Swiss honors were captured by Frank Ochsner, Stephenson county. His herd averaged 13,823 pounds and 547 pounds of milk and butterfat respectively.

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Rosewood Farm, Cook county, took top honors in the Guernsey breed with an average of 10,854 pounds of milk and 545 pounds of butterfat.

And Jersey honors were won by Ray D. Clancy of Charleston. This herd averaged 9,904 pounds of milk and 510 pounds of butterfat.

Fryman points out that, although a high average is not the main objective of DHIA testing work, there is a close correlation between high production and good returns. That is why herds with high production are recognized by the Purebred Dairy Cattle Association through the awarding of certificates.

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PAC:cm
6/1/59

ILLINOIS FARMERS' OUTLOOK LETTER

URBANA, ILLINOIS JUNE 3, 1959

DAIRY: SUPPLY, CONSUMPTION, AND PRICES

Supply. Since decreasing slightly from the record 125.9 billion pounds in 1957, the supply of milk in the United States has been quite stable. Production in the first half of 1959 approximated that of the same period a year ago. However, it is likely that the output will pick up in the latter half of this year. Increased production per cow (a record May 1 amount of 23 1/4 pounds daily per cow) and reduced culling rate will contribute to the larger milk supply.

Average daily production per farm selling Grade A milk continues to increase rapidly. In April daily production for Chicago shippers averaged 809 pounds, up 7 percent from April 1958. In the Quad-Cities (Rock Island), the average was 662 pounds, up 5 percent; and in St. Louis it was 573 pounds, up 13 percent. For their milk supplies, these markets draw heavily from Wisconsin, Iowa, and Missouri in addition to Illinois. Producer numbers were down from April 1958 by 2 percent at Chicago, 9 percent in the Quad-Cities, and 5 percent at St. Louis.

Consumption. The amount of milk and dairy products consumed per person changes very little from year to year. It is mainly changes in retail prices, personal incomes or the presence of substitute products that affects consumption of these products.

Per capita consumption of fluid milk and cream in 1959 will be close to the 345-pound figure of 1958. Butter should average about 8.4 pounds per person, the same as in 1958 but far below the amount in 1934, which was 18.6 pounds. Per capita consumption of oleomargarine in 1958 was 9.0 pounds; in 1934 it was 2.1 pounds.

Cheese, which utilizes 11 percent of the total milk supply, will continue in strong demand. Per capita cheese consumption attained a new record in 1958 (8.4 pounds), when meat prices were high.

Per capita consumption of ice cream is stable at about 3.8 gallons annually. However, ice milk (low butterfat dessert) consumption is increasing. Also, sales of vegetable fat frozen desserts, now legal in 12 states, including Illinois, have grown to exceed 20 percent of ice cream sales in the permitting states.

Evaporated milk sales are declining. Per capita consumption in 1958 was 12.6 pounds, the lowest since 1934. Consumers are using more nonfat dry milk, half and half or whole milk in place of the evaporated milk.

Prices. Prices paid milk producers, especially in or near the surplus milk-producing area of the upper Midwest, will continue to be influenced strongly by the government support price. Current support levels, which will be in effect through March 1960, are $3.06 a hundred pounds for manufacturing milk and 56.6 cents a pound for butterfat.

Blend prices in fluid milk markets in northern Illinois will continue to be depressed because of large surpluses. In the first three months of this year, for example, 45 percent of the milk in the Chicago pool went into the lower priced manufacturing classes. The surplus amounted to only 14 percent in St. Louis. Producer prices in southern Illinois will be influenced by strong St. Louis prices.

Robert Jacobson
Department of Agricultural Economics

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK....

AT DIXON SPRINGS

(A roundup of the week's work, activities, and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

On Friday, May 29, two carloads of pooled southern Illinois wool were sold to a southern Illinois buyer, Lode Poultry Company of DuQuoin, for a total of $18,710.36. Nearly 43,000 pounds of wool were consigned by 129 producers to the second annual wool pool held at the Dixon Springs Experiment Station.

All clear wools of combing length--medium, fine and half blood--sold for 46¼ cents a pound. Medium clothing wools also sold for 46¼ cents, and the fine and half-blood clothing wools for 39¼ cents. Seedy and burry fleeces sold at a discount of about 7 cents at 39¼ cents a pound. Five buyers presented sealed bids to the pool.

Wool Varies

Wool is not just wool. It varies in value depending upon many characteristics. It varies in fineness, length, strength and uniformity of fibers in the fleece and also in evenness and distinctness of crimp, purity, softness and color. Because of these variations, each of some 5,300 fleeces had to be critically examined by an expert and experienced wool grader before it could be offered for sale. As a result, the mountain of consigned wool was separated by grade into 18 hills of pooled wool. Putting on a wool pool means more work and planning than just bringing in and selling the wool.

It's Done This Way

Wool is received in bags at a truck-bed-level unloading dock. Each bag is tagged with the consignor's name and address. A dockman checks the incoming wool and sees that each consignor's wool is bunched so that it may be graded as a unit. A full wool bag may weigh 200 to 300 pounds. A block-and-tackle hoist is hooked to

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the bottom of the wool sack to raise it so that the fleeces may be rolled from the sack across the grader's table.

At the Dixon Springs pool, one man at the grader's table pulled the fleeces from the hoisted bag and passed them along to a second man, who pulled out the tags and manure locks before passing each fleece on to the grader. With a quick, experienced eye, the grader scanned each fleece and tossed it into one of several big pressed board boxes.

As soon as a wool grower's complete consignment had been graded, the boxes were carried to a scale for weighing. The weight of each grade of wool was entered on a sale sheet. Each consignor had his own sale sheet so that he could have a record of the weight for each kind of wool he delivered to the pool. This sale sheet is also used as a basis for settlement,with the price entered for each kind of wool delivered.

After Weighing

After weighing and recording, a consignor's wool loses its ownership identity. Wool of like grades is tossed into bags measuring $2\frac{1}{2}$ feet in diameter and 7 feet long. Supported by an eight-foot-high wooden frame, a metal ring and clamp the size of the bag opening holds the bag for filling and tramping. A well-tramped bag will hold more than 30 fleeces and when filled is ready for release from the support for sewing up the open end. The wool grade is marked on each bag, and it is then stacked with other bags of the same grade ready for buyer inspection. Buyers may or may not inspect the wool. In most cases they accept the wool sorter's grades. At Dixon Springs several of the bids were made by telephone and mail.

Compared to Other Co-Op Sales

On hand to assist with the wool pool was Dr. M. E. Mansfield, Station veterinarian, who also always helps with the lamb, feeder pig and feeder cattle sales. At these other sales, the product carries itself across the scales, into the lots and through the sale ring. But wool has to be carried. Dr. Mansfield says one consolation is that wool doesn't make any noise.

HAC:rm
6/3/59

farm Radio News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Calves Can Digest High Amounts of Fat

URBANA--Dairy calves can digest as much as 9 percent butterfat in milk.

But at that rate they will scour more than calves getting only 3 percent butterfat in their milk ration, says Karl E. Gardner, dairy scientist at the University of Illinois.

This research work at the University's Agricultural Experiment Station will be reported as one of the papers to be given at the 54th annual meeting of the American Dairy Science Association at the University of Illinois June 15-17. More than 200 scientific papers will be read during the meeting.

Another paper to be given by Gardner will report experimental work done here on the use of sugars by a young dairy calf. Results of the experiments show a considerable amount of variation in the utilization of different sugars by calves. For example, fructose was poorly absorbed and sucrose was not utilized unless converted by citric acid or fed with invertase. On the other hand, lactose and galactose were readily utilized.

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Other papers to be given at the meeting on the problems of nutrition for young calves include one from Minnesota on the effect of five levels of animal fat in milk replacers, one from Michigan on the level of protein in milk replacers and one from North Carolina on the use of corn silage as the only roughage for dairy calves.

Authors of this third paper will report that calves on corn silage, milk and calf starter gained as well to four months of age as a similar group of calves on good-quality hay, milk and starter.

The purpose behind most of the nutrition experiments on raising young calves is to learn more about their nutritional requirements so that better calf-feeding programs can be developed.

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RAJ:cm
6/4/59

FOR IMMEDIATE RELEASE

Shortleaf Pine Responds to Nitrogen Fertilizer

URBANA--Nitrogen fertilizer increased growth rate of a shortleaf pine plantation last year at the University of Illinois Dixon Springs Experiment Station in southern Illinois.

W. R. Boggess and A. R. Gilmore, foresters at the UI College of Agriculture, report that 100 pounds of nitrogen alone and 100 pounds of nitrogen and 100 pounds of 48 percent superphosphate were applied to 20-year-old stands of shortleaf pines in 1/20-acre plots during March last year. Similar plots had no treatment.

Fertilizer was broadcast on the ground surface before the trees began to grow. Diameter breast high was marked on all trees and measured to the nearest 5/100 inch at the beginning and end of the growing season.

The average diameter growth was .158 inch for the nitrogen-fertilized trees, .123 inch for the nitrogen- and phosphorus-fertilized trees and .106 inch for the unfertilized trees.

Boggess and Gilmore point out that the 1958 growing season at Dixon Springs was unusual because rain fell all summer and the trees did not stop growing until mid-September. Ample July and August rainfall kept the fertilizer available for tree growth.

The researchers cannot explain the unexpected small response to the combination of nitrogen and phosphorus fertilizers, especially since southern Illinois soils are low in available phosphorus. Additional studies now going on may supply some of the answers.

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RAJ:cm
6/4/59

FOR IMMEDIATE RELEASE

Five Men to Receive 30-Year Awards

URBANA--Five men who have taught vocational agriculture in Illinois for 30 years will be honored and given awards at the annual conference of the Illinois Vocational Agriculture Teachers Association. This conference will meet on the University of Illinois campus June 8-11.

The five men include A. E. Foster, Kaneland Community Unit, Maple Park; M. G. Roberts, Genoa; William Stumm, Pleasant Plains; Irving Nelson, Cerro Gordo; and Don B. Pence, Rankin Township. Each will receive a watch from John Austin, representing the Sears Roebuck Foundation, at the Wednesday evening banquet.

Nearly 500 vocational agriculture teachers are expected to attend the four-day conference. Although various committees will meet on Monday, June 8, the conference will not open formally until Tuesday morning. Dean Louis B. Howard of the UI College of Agriculture will give the welcome address.

Also included on Tuesday's program will be a discussion of the farm equipment safety program by Kenneth Huddleston, public relations director of the Farm Equipment Institute, and a report on teacher training at Southern Illinois University by Dr. Ralph Benton.

The conference will adjourn on Thursday at 4 p.m. after Herbert R. Damish, chief of Illinois agricultural education, discusses the vocational agriculture program in Illinois.

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PAC:cm
5/4/59

FOR IMMEDIATE RELEASE

FFA Members Seek Star Farmer Award

SPRINGFIELD--Only five ambitious young men representing more than 16,000 Illinois Future Farmers of America members now remain in competition for the coveted Illinois Star Farmer Award.

The Illinois Star Farmer citation is the highest state award available to Illinois FFA members. The five finalists represent the five FFA districts in Illinois.

The winner of the state Star Farmer award will receive the honor during the 31st annual State FFA Convention June 16-18 at Springfield.

The final contenders are Merle Hodel, 18, son of Mr. and Mrs. Alvin Hodel of Roanoke; Jerry Lee Hoffman, 17, son of Mr. and Mrs. Charles Hoffman of Carlock; Bryan K. Koontz, 17, son of Mr. and Mrs. Ralph M. Koontz of Hillview; John F. Marten, 16, son of Mr. and Mrs. Francis Marten of Raymond; and Richard M. Stallings, 18, son of Mr. and Mrs. Gilbert Stallings of Carmi.

Star Farmer award selection is based on the over-all size, growth and earnings of FFA-supervised farming activities, along with general scholastic achievement and other school and community activities.

The Illinois FFA, part of the nation-wide official organization of high school vocational agriculture students, has nearly 500 chapters throughout the state.

H. R. Damisch, chief of Illinois agricultural education, Springfield, is the official adviser to the Illinois FFA.

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5/2/59
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FOR IMMEDIATE RELEASE

Once-Safe Wiring May Need Attention

URBANA--Safe electrical wiring does not necessarily remain so. Moisture condensing in electric conduits may rot the insulation from the wires and cause a short. Metallic cables may rust through, exposing the insulated wires to damage and inviting shorts.

It is good insurance to go over every foot of electric wiring on the farmstead carefully to discover loose connections, damaged insulation, rusted or broken surfaces and loose switch-box connections, advises O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

Many fires of "undetermined origin" are suspected to be due to neglected electric wiring. Lightning rods are effective in protecting buildings against lightning damage, but such systems can be worse than useless if ground connections are broken or loose. Connections to the ground rod from the lightning rod system must be absolutely tight and metal to metal.

By keeping the problem constantly in mind while working around the farmstead, farm families can discover and eliminate most fire hazards.

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OLH:cm
6/4/59

FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Mulching Helps Your Vegetable Garden

by Norman F. Oebker
Vegetable Crops Specialist, University of Illinois

URBANA--Mulching the soil around your garden vegetables helps to conserve moisture, prevent erosion and control weeds. Mulching also keeps the soil cool in hot weather, keeps the surface loose and friable, often adds organic matter to the soil and prevents vegetables from becoming spattered with mud.

A cool soil is especially helpful in Illinois because high temperatures in midsummer often prevent proper development of roots of some vegetables.

Mulching is simply covering the soil with some protective material. Good materials for mulching include leaves, grass cuttings, peat moss, sawdust, ground corncobs, straw, hay, shavings, aluminum foil, paper and polyethylene plastic.

Apply the mulch on the soil after plants are well established. It is advisable to cultivate once or twice before mulching. Then you will not need to cultivate again that season.

Spread the material evenly over the soil surface between the rows and around the plants. Mulch thickness will depend on the material and its cost. Such mulches as leaves or straw are usually three or four inches deep. A mulch of peat moss, shavings or wood chips is seldom more than two inches thick.

Newspapers eight or ten sheets thick also make a fairly good mulch. Use small stones or a band of soil along the outer edge to hold the papers in place. Aluminum foil is sometimes used in the same way. Black polyethylene plastic is a new idea in mulches that appears promising for the home garden. Sheets of the plastic are laid over the garden soil, and vegetables are planted through holes in the material. Special paper mulches treated with a fungicide and preservative are also available.

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Plastic tends to warm the soil rather than cool it. This is an advantage early in the season, but a disadvantage later. Plastic works best in midsummer on such crops as tomatoes that will shade the mulch surface. This shading will prevent the soil from becoming too warm.

Most mulches, except aluminum and plastic, cause a nitrogen deficiency to develop. This deficiency develops because the organism causing organic matter (mulching material) to decompose, uses nitrogen. That's why it's a good idea to apply extra nitrogen before mulching. When plants tend to have light green or yellowish leaves, apply about 1/2 pound of ammonium nitrate or one pound of nitrate of soda per 100 square feet.

Mulching materials are available at hardware stores, construction companies and nurseries, Organic materials, such as leaves, are found around the home.

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6/3/59

FOR IMMEDIATE RELEASE

Cutlines:

ORGANIZING FFA CONVENTION PLANS Vernon Burgener (left), executive secretary of the Illinois FFA; Tommy Clark (center), state FFA president from Catlin; and Gwinner Snyder, state FFA secretary-treasurer, Moweaqua, are busy organizing plans for the annual Illinois Future Farmers of America convention in Springfield June 16-18. Nearly 2,500 FFA boys will participate in this annual farm youth event.

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PAC:cm
6/4/59

for dailies

Farm News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Announce National Co-op Conference Program Highlights

URBANA--More than 40 states and Canada will be represented among the 1,200 youth expected at the American Institute of Cooperation meeting on the University of Illinois campus August 9-12. At the same time, more than 1,800 adult farm and cooperative leaders will also participate in discussions and future planning of cooperative activities.

G. W. Stone, assistant state leader of Illinois 4-H work, reports that during the three-day meeting the youth representatives will discuss current farm problems, enjoy recreational activities and tour typical central Illinois farms.

To handle this large youth group, University farm management staff members will select about 30 farms within a 40-mile radius of Champaign-Urbana. Farms to be selected will feature successful young farmers or father-son partnerships. Visiting youth will have a chance to talk with the farm operators and learn about farming practices and problems in this part of the country.

Adult sessions will emphasize "Gearing Cooperatives to Serve Modern Agriculture," "Modern Management to Serve Modern Agriculture,"

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"Organizational and Financial Planning for Tomorrow," "Directors and Their Responsibilities," "The Challenge of Communications," "Corporate Structure to Serve Modern Agriculture" and "Cooperatives--Enlightened Capitalism."

Special sectional meetings are also planned for those who are especially interested in accounting, dairy marketing, farm credit, farm supplies and equipment, information, research and education, legal matters, grain marketing, livestock marketing, seed marketing, retail supply cooperatives, egg and poultry marketing, schools, transportation, bargaining, co-op hatcheries, member relations, merchandising, petrolum and automotive supplies and rural electrification.

Conference headquarters will be at Huff gymnasium, where all guests will register and get room assignments. Student residence halls on the campus will be used to house conference visitors. Exhibits and press headquarters will be set up in the gymnasium.

G. L. Jordan, University of Illinois professor of agricultural economics, is general chairman of arrangements for the conference. Requests for dormitory rooms should be addressed to him.

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HDG:cm
6/8/59

FOR IMMEDIATE RELEASE

Adding Solids-Not-Fat Increases Milk Taste Appeal

URBANA--Two University of Arizona researchers have found that adding non-fat solids to milk improves flavor, food value and utilization.

J. W. Stull and J. S. Hillman will make this report to dairy scientists from all over the nation at the 54th annual meeting of the American Dairy Science Association at the University of Illinois June 15-17.

Stull and Hillman will tell about how more than 10,000 persons in retail food markets, public gatherings and public schools helped to provide the information for this detailed research study.

About 1,500 dairy research workers and their families are expected to attend the scientific meetings on the Urbana campus next week. Most of the three-day program will consist of reports of research in the field of dairying. Research workers attend this meeting to get a bird's-eye view of the latest research in progress in the dairy field.

These scientific meetings are held on a campus of a land-grant college in the United States each year, according to G. W. Salisbury, head of the department of dairy science at the University of Illinois. Three section programs will run simultaneously this year.

One group interested in the problems of handling milk and milk products will attend the manufacturing section, where papers on new ideas in milk marketing, cheese, butter and ice cream making, milk plant problems and whole milk handling will be presented. The Arizona paper mentioned above will be given in this section.

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Reports of the latest findings in the breeding, feeding and management of dairy cattle will be given in the production section. This area of discussion will appeal to another group of visitors.

The third section will deal with the newest ways and means of interpreting and carrying the latest research findings to the nation's dairymen. Use of visual aids, records, forage testing programs, automatic feed handling and cow pools are examples of the type of discussions to be presented in the extension section.

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RAJ:cm
6/8/59

FOR IMMEDIATE RELEASE

Report Records on 347 Fall Pig Litters

URBANA--Litter weights on 347 of last fall's pig litters averaged 272 pounds at 56 days.

This was an average of 35.3 pounds for 2,675 pigs reported out of four of the state's Swine Herd Improvement Associations, according to H. G. Russell, extension livestock specialist at the University of Illinois College of Agriculture.

These figures compare with an average of 278.2 pounds on 456 litters in seven associations reported on the 1957 fall pig crop. Average pig weight then was 34.5 pounds on 3,679 pigs.

Litter weights on gilt litters last fall averaged 251.5 pounds compared with 236.2 pounds for gilt litters in 1957, and 300.2 pounds for sow litters last fall compared with 330.1 pounds for 1957 fall sow litters, Russell reports.

To be listed as having met production registry requirements of the Illinois Swine Herd Improvement Association, gilt litters must average 275 pounds and sow litters must average 320 pounds. Figures used are 56-day weaning weights.

A total of 55 members from 10 local associations submitted farrowing and weighing reports on 802 litters for the 1958 spring litter summary. In addition, 84 FFA members from nine FFA chapters submitted farrowing and weighing reports on 259 litters, for a total of 1,061.

Average weight for the 1958 spring litters was 295.9 pounds, covering 8,587 pigs. Average pig weight was 36.6 pounds.

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Average for 588 gilt litters was 276.2 pounds and for 473 sow litters was 320.3 pounds. Both of these averages barely went over the production registry minimum limits, the first time this has happened in both groups at the same time.

One thing the records show is the striking variations between farms, Russell points out. Numbers of pigs weaned varied from 4.8 to 10.0 in the gilt litters and from 6.8 to 11.2 in the sow litters, while losses varied from 5.4 to 50.0 percent in the gilt litters and from 6.8 to 42.8 percent in the sow litters. Pig weights varied from 26.6 to 46.4 pounds in the gilt litters and from 28.1 to 51.6 pounds in the sow litters.

Of the 378 gilt litters in the adult associations, 170, or 45 percent, met or exceeded production registry 56-day litter weight requirements based on averages of groups of gilt by individual farm summary. Averages were 10.6 pigs farrowed and 8.4 weaned in these litters. Death loss averaged 20.5 percent. Average pig weight and litter weight adjusted to 56 days were 37.8 pounds and 319 pounds.

Of 176 sow litters, or 41.5 percent, that qualified as farm farrowing groups that met production registry requirements, the averages were 11.4 pigs farrowed and 9.2 weaned. Death losses averaged 19.7 percent. Average pig and litter weights adjusted to 56 days were 41.1 and 376.2 pounds.

These records show that farmers can have groups of sows and gilts that farrow and wean large litters. They do not show the successful management practices the top hog producers used. But pigs averaging more than 40 pounds at 56 days are not uncommon in smaller herds, and 36-pound averages seem to be good for the larger herds.

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6/8/59

FOR IMMEDIATE RELEASE

Four Illinois Delegates Attend National 4-H Conference

URBANA--Four of Illinois' outstanding 4-H Club members will fly to Washington, D. C., on Friday, June 12, to take part in the 29th National 4-H Conference June 13-19.

These 1959 delegates are Linda Lou Smith, 20, Macomb, McDonough county; Audrey Mascitti, 20, Steger, Cook county; Robert Bohlen, 19, Moweaqua, Shelby county; and Howard Werkheiser, 19, Kewanee, Henry county.

These young people will spend a full week in the nation's capital city in citizenship training as representatives of Illinois' more than 67,000 4-H Club members.

The delegates will visit Congress and other governmental functions and will go on educational tours to historic places in and around Washington. They will hear some of the top officials in the government speak on the nature and history of our democratic system and will meet in discussion groups to summarize what they learn.

Selection to attend the National 4-H Conference is the highest honor a 4-H member can achieve. Delegates are chosen by the state 4-H Club staff at the University of Illinois for their leadership ability, outstanding achievements in 4-H Club work and participation in project and community activities.

Mrs. JoAnn Sievers and George Daigh, members of the state 4-H staff, will accompany the Illinois delegation this year as state 4-H staff representatives and chaperons.

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RAJ:cm
6/8/59

FOR IMMEDIATE RELEASE

Stored Grain Insects Rob Farmers

URBANA--Farmers average a 10 percent loss of grain in storage to insects every year. In dollars and cents this adds up to a tidy sum that farmers never get.

Grain insects are always present, explains Steve Moore, extension entomologist with the University of Illinois and Illinois Natural History Survey. During winter they are relatively inactive. But when warm weather arrives their numbers increase by leaps and bounds. By summer they have mobilized forces and are ready to invade stored wheat and other small grains.

Moore has outlined a program to control stored grain insects. If farmers follow this program they should have little trouble with these insects in 1959.

Control Program for Stored Grain Insects

1. Clean up storage bins and all equipment used for handling grain. Also remove accumulations of old grain near bins. Studies show that 70 to 80 percent of infestations arise in stored grains because insects are already in bins where new grain is dumped.

2. Spray bins to kill insects that escaped during the clean up. Some insects, such as the cadelle, bore into bin walls. Only sprays will eliminate them.

3. Store only clean, dry grain. The moisture content of stored wheat should never exceed 13 percent. High moisture creates certain odors that attract insects and hasten their development. Clean grain is important because it seems to discourage their breeding.

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4. Treat the grain as further insurance. Use a premium-grade malathion protectant spray or dust. Every farmer who stores wheat or sheltered corn for extended periods will find this treatment profitable. Even oats should be treated when past experience has indicated grain insects to be a problem. For more information on sprays and dusts to use, contact your farm adviser.

5. Reinspect grain at regular intervals. Moore suggests at least twice a month during the summer and once a month during the winter. Metal rods inserted in the grain mass are a practical method to detect "hot" spots. Moisture builds up or insects create these spots.

Moore emphasizes that all farmers storing wheat will benefit by following these control measures.

Farmers storing ear corn should follow the procedure for cleaning and spraying bins. Do it when bins are cleaned out in June or July. Oats do not require protective treatment from stored grain insects unless they were bothered last year.

Insects seldom attack stored barley, so this crop does not require protective treatment either. And, since insects in stored soybeans feed on molds and not on the beans, do not be alarmed if you find insects in soybean bins.

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PAC:cm
6/8/59

FOR RELEASE THURSDAY, JUNE 11, 1959

Present Awards at Vo-Ag Teachers' Banquet

URBANA--More than 50 Illinois Agriculture teachers received awards last night (June 10) at the Illinois Vocational Agriculture Teachers Association banquet at the University Place Christian Church in Urbana.

The nearly 500 vo-ag teachers were attending their annual conference on the University of Illinois campus June 8-11.

Awards were first presented to men who have served vocational agriculture for 10 years. These men each received an IVAT lapel button. Six men who have been vo-ag teachers for 20 years each received a gold key. Topping off the presentations were awards of watches by the Sears Roebuck Foundation to five men who have been vo-ag teachers for 30 years. The men included A. E. Foster, Kaneland Community Unit, Maple Park; M. G. Roberts; Genoa; William Stumm, Pleasant Plains Unit; Irving Nelson, Cerro Gordo Community Unit; and Don B. Pence, Rankin Township.

During an afternoon business session, 20 men received desk pen sets for having taught vocational agriculture 25 years.

Local men receiving awards included (attached is a complete list of men who received awards):

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Men Receiving Lapel Buttons for 10 Years of Service.

Clifford J. Sichta	Lanark
Harold Vance	Fulton
Kenneth J. Condit	Washburn
Frank Crawford	Roanoke
Robert E. Lenz	Varna
Robert Brown	DeKalb
Stanley G. Magnuson	Somonauk
Joseph L. DeGulie	Coal City
George Richter	Newark
Ernest Sancken	El Paso
Carl McCausland	Lewiston
Calvin Threlkeld	Armington
R. Glenn Willard	Griggsville
David Sistler	Arthur
Richard Smith	Paris
William M. Bullard	Morrisonville
Paul Hillis	Litchfield
Vergil Gregg	Westfield
Donald Dillow	Dieterich
Frank Hinton	Valmeyer
Charles R. Best	Chester
Clarence Cox	Grayville
Milton Renaud	Metropolis

Men Receiving Keys for 20 Years of Service

George O. Irvine	Tonica Comm.
Wm. H. Lubben	Gilman Comm.
Joseph McGann	Danvers Comm.
A. W. Schmidt	Aldin-Hebron
Frank Young	Washington Comm.
James Bond	Galatia Comm.

Men Receiving Desk Pen Sets for 25 Years of Service

Howard D. Allison	Atkinson
W. C. Brokow	Geneseo
Duane Gregory	Sherrard
M. L. Lindsay	Prophetstown
Claude Nelson	Stronghurst
Melvin Stengel	Chadwick
Clifton E. Wick	Pearl City
Gilbert D. Clem	Warren Twp., Gurnee
E. E. Mayhew	Bloom. Twp., Chicago Heights
Wayne M. Rich	Manteno Comm., Unit
V. A. Green	Schuyler Co. Comm., Rushville
Kenneth Diehl	Shelbyville Comm. Unit
Burl A. Horking	Central Comm. Robinson Unit
Clarence Hanover	Warrensburg Comm. Unit
Melvin J. Nichol	Maroa Comm. Unit
Nelson P. Roberts	Arcola Comm. Unit
P. H. Daigh	Lebanon Comm.
Phillip E. Gill	Carlyle Comm. Unit
Edwin Thompson	Thompsonville Comm.
E. J. Thompson	Harrisburg Twp.

PAC:cm
6/8/59

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Plans Complete for National Co-op Meeting

URBANA--Over 200 local and nationally prominent farm business leaders plus 150 selected rural youth will discuss marketing and production cost problems facing the nation's farmers August 9-12 on the University of Illinois campus at the 31st annual summer session of the American Institute of Cooperation.

Ways to increase the farmer's bargaining power, in the face of rising costs and lower prices for his products, through stronger and more effective organization will be in the forefront of these discussions to be attended by some 3,000 farm leaders and farm youth, according to A.I.C. President J. K. Stern of Washington, D. C.

This year's program has been carefully drawn to help cooperative directors, members, management and young people work together to improve their self-help organizations. Current problems will be highlighted more than ever, and the spotlight will be put on changes farm business organizations face in the near future for survival and for service.

"Faced with continual rising costs but lower prices at the farm gate for his products, the family farmer must increase his bargaining power through better organization if he expects to survive,"

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Mr. Stern said. "This meeting of the institute comes at a time when low prices are forcing into bankruptcy many farmers in poultry and egg production, for example, or forcing them into one-sided contracts, which means that somebody else makes all decisions."

While operational problems will be featured in sectional meetings, general sessions will deal with such timely subjects as "Modernizing the corporate structure of cooperatives to serve tomorrow's needs"; the importance of better communications between members, management and the public, with practical examples; and problems of bargaining cooperatives.

Sectional meetings will deal with the following: dairy marketing, farm credit, general farm supplies and equipment, research and education, grain marketing, improving retail supply cooperatives, livestock marketing, egg and poultry marketing, seed marketing, schools and cooperatives, bargaining cooperatives, co-op hatcheries, membership relations, merchandising, petroleum and automotive supplies and rural electric. Special sessions are planned, also, for specialists in information, transportation, accounting and legal problems affecting cooperatives.

This year's unusual features include a research workshop to precede the institute on August 7-8, as a companion session for the annual extension workshop, to be held again on the same days; a special session on seed marketing; and 10 special workshops for young farmers and homemakers in a special effort of the A.I.C. to reach the 20- to 30-year age group.

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The key-note speaker will be a highly regarded midwestern farm leader, Paul C. Johnson, editor of the PRAIRIE FARMER, oldest U.S. farm paper. Mr. Johnson's presentation will be on the institute theme, "Gearing Cooperatives to Serve Modern Agriculture."

Talented youth are being invited to participate in a novel talent show on August 12.

Women's important role in farm business will be highlighted in a carefully planned general session Tuesday morning, August 11, with the theme, "Gearing Cooperatives to Serve the Modern Farm Family." Top women leaders in farm business organizations are on the program to examine ways in which farmer cooperatives can serve the farm family's home and information needs.

The windup program on Wednesday evening, August 12, will feature Raymond W. Miller, lecturer on public relations at the Harvard Graduate School of Business Administration and former president of the Institute, speaking on "Cooperatives--Enlighted Capitalism."

Youth will be in the spotlight Monday night, August 10, with awards to 4-H and FFA members who showed outstanding proficiency in cooperative activities. Regional winners in the A.I.C.-FFA contest, which closes June 30, will receive their share of the $2,000 A.I.C. prize fund and will report on how they won. During the three-day meeting, some 1,200 young farmers and rural youth will attend their own special sessions, visit nearby farms, participate in panel discussions and join adults in the general sessions and entertainment events. This phase of the program is in charge of Howard McClarren of the Institute staff.

Attractive, comfortable accommodations are still available in new residence halls at the University. Write to Dr. G. L. Jordan, Department of Agricultural Economics, University of Illinois, Urbana.

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HDG:cm
6/10/59

ILLINOIS FARMERS' OUTLOOK LETTER

CATTLE BOOM CONTINUES

Price Prospects Favorable for Balance of Year

URBANA, ILLINOIS JUNE 10, 1959

The cattle situation is showing most of the typical indications of a boom. Although present prices are high, continuation of the high rate of build-up in cattle numbers could cause serious troubles in the future. The increase in cow numbers was not extremely large last year--only 19 percent of the total increase in cattle numbers. Beef supplies under normal marketings from current numbers of breeding stock would not be unduly high. However, a large increase in cow numbers in the next few years could provide market supplies of beef far in excess of our population growth and could lead to a serious price collapse.

Slaughter of cows for the first quarter of the year was 24 percent below that of a year earlier. Cattle slaughter this year has largely consisted of fed cattle and culls. Cattle that offer some possibilities of further profit have been held either for additional feeding or for calving.

With the sharp build-up in cattle numbers that is occurring, the situation becomes more sensitive to range and crop conditions. A drouth in the range area or adverse crop conditions could bring sharp price reactions in both slaughter and replacement cattle markets.

Since last October fed cattle prices have followed almost an identical pattern with that of the previous year, but have stayed slightly higher.

Recently there has been some decline in fed cattle prices. Last year about a $4 decline occurred in prices of choice cattle from the last of April to the first of August. Marketing of fed cattle will likely be high during this summer period, but it is doubtful whether prices will decline as they did last year.

In the past few weeks the number of cattle slaughtered under federal inspection has been equal to or slightly greater than that a year ago. This is an increase in slaughter rate from the first quarter of this year, when total numbers slaughtered were about 7 percent below a year ago. Average weights have also been heavier, so total beef production has been a little larger than it was last year.

(Continued)

Total slaughter so far this year has been less, but slaughter of fed cattle has averaged abou 8 percent larger than last year. Prices of fed cattle have been strongly supported by lack of othe kinds of cattle coming to market. This lack of supply of lower grade cattle has caused a narro spread of market prices that will be likely to continue throughout the year.

Demand for replacement cattle and movement to the country have continued at a very hig level. The average cost of stocker and feeder cattle for the last week in May at the ten major mar kets was about $2.25 above a year earlier. While the movement of replacement cattle seems t have dropped some in May, shipments to the Corn Belt in April were almost half again as large a a year earlier. For the period January through April, they averaged one-fourth more than in th previous year. This heavy movement indicates that the supply of fed cattle coming to the marke will continue high. However, with small supplies of nonfed cattle, the supply of beef per perso will probably be about 80 pounds, the same as it was last year.

M. B. Kirtley
Department of Agricultural Economi

THE UNIVERSITY OF ILLINOIS
College of Agriculture
Urbana, Illinois

Louis B. Howard
Director

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THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

In the center of a large field was a small pen. About a quarter of a mile away was a band of sheep. Upon command, Roy, a Border Collie belonging to Arthur Allen, streaked down the side of the field behind the sheep and drove them through a course of gates by alternating lightning-fast darts and mesmerization, finally penning the flock to win the North American Sheep Dog Trials. This happened on Sunday, June 7, at the Dixon Springs Experiment Station.

Roy had plenty of competition in his kennel mate, Nan, who placed second. Fly and Jean, owned and expertly handled by Kenneth Odum from Benton, placed third and fourth respectively. Fan, a top dog in anybody's book, owned and handled by Max West of Omaha, placed fifth.

Working Dogs

Border Collies are one of the few truly working breeds of dogs and one of the principal breeds for sheep work. One good, well-handled dog can easily replace several men in the rapid movement and herding of sheep. The breed association for Border Collies requires, as one of the qualifications for registry, that the dog pass an examination on working sheep. It is this rule that has maintained the Border Collie as a true working dog.

Annual Picnic

Following the dog trials, the Illinois Purebred Sheep Association held its annual picnic at Lake Glendale. About 100 members and guests feasted on eight barbecued legs of lamb, supplemented with beans, salads, potatoes, cakes and cookies--food that always goes with a sumptuous picnic table. A short tour of the Station pastures and a look at some of the sheep and cattle wound up the day.

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[illegible]

[illegible] TRAINING

[illegible] meeting of the week's work, everyone [illegible] participation in the [illegible] University Police Department [illegible] Training Program, [illegible] Training, presented by [illegible]

In the course of a [illegible] the [illegible] [illegible] a [illegible] [illegible] a [illegible] of [illegible]. Upon request, Det. [illegible] [illegible] [illegible]

for dailies

Farm News

IVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR P.M. RELEASE WEDNESDAY, JUNE 17, 1959

Band Opens Third FFA Convention Session

SPRINGFIELD--A rousing march by the 90-piece State FFA Band opened the third session of the Illinois Future Farmers of America Convention this morning at the State Fairgrounds.

Band members were selected from among the 16,000 Illinois FFA members. Although they had never practiced together until yesterday morning, they will perform many times during this three-day 31st annual convention. The band is directed by Leo O. Garlanger.

Following the band's performance, J. Ralph Peak, manager of the Illinois State Fair, gave a welcoming address to the nearly 2,500 FFA boys attending the convention.

Other speakers on today's program included Thomas E. Stein, national FFA vice president, Ozark, Missouri; Miss Maryann Granger, 1959 Illinois Dairy Princess; and Miss Katherine Busboom, president, Illinois Future Homemakers Association, Stillman Valley.

The convention completes its final session Thursday night.

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FOR IMMEDIATE RELEASE

Nelson to Spend Year at Army Chemical Lab

URBANA--W. O. Nelson, professor of bacteriology in the Department of Dairy Science, University of Illinois College of Agriculture, will spend the year beginning July 1 at the U. S. Army Chemical Corps Biological Warfare Laboratories at Ft. Detrick, Maryland.

Joint announcement of this appointment was made today by G. W. Salisbury, head of the Department of Dairy Science, and J. L. Roberts, director of development at Ft. Detrick. Nelson will serve as assistant director of development and special advisor to the commanding officer at the laboratories.

To accept this appointment, Nelson will take a leave of absence from his duties at the University. He is already associated with the Army Chemical Corps through his membership on a committee of the Society of American Bacteriologists advisory to the Chief Chemical Officer.

Nelson, 44 years old, was graduated from the University of Illinois in 1937 and received his M.S. and Ph.D degrees from there in 1940 and 1951, respectively. From 1937 until 1943 he was a bacteriologist for Wilson and Company, Chicago, and for the next three years he served as an officer in the Army.

He has been a member of the staff of the Department of Dairy Science at the University of Illinois since 1946 and has headed the bacteriology section of that department since 1951. He is a member of the Society of American Bacteriologists and the American Dairy Science Association.

He and his wife and daughter live at 2108 Grange Drive in Urbana. They plan to live in quarters at Ft. Detrick.

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6/11/59

FOR IMMEDIATE RELEASE

Agronomy Day Features 60th Anniversary Tribute

URBANA--Sixty years of progress through crops and soils research will be featured at the University of Illinois Agronomy Research farm on June 24. More than 1,000 farmers and other visitors are expected to come to the University to see what today's crop and soil scientists are doing to further advance Illinois agriculture through research.

The University's Agronomy Department was officially recognized by the Board of Trustees on August 16, 1899, even though research in crops and soils had been under way for a number of years prior to that time. During the past 60 years, the department has carried out hundreds of experiments to advance Illinois agriculture, and thousands of students have received their educational experiences under the direction of its staff.

Sights to be seen on the 19-stop tour scheduled for June 24 would be amazing and almost unbelievable to the crop and soil scientists of 60 years ago. Visitors will see the latest tests of chemicals to control weeds, the latest weed spraying equipment, minimum-tillage and dwarf corn population studies, tests to determine the best plant spacing, rates and dates for soybeans, use of herbicides to establish legumes, water use studies and alternate planting of corn and soybeans.

While oats and wheat were grown 60 years ago, visitors will find an entire new array of 21 oat varieties, none of which are more than 10 years old. Another tour stop will show 19 hard and soft wheat varieties developed in recent years. One wheat variety in this year's

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FOR P.M. RELEASE TUESDAY, JUNE 16, 1959

FFA Convention Swings Into First Session

SPRINGFIELD--The 31st annual convention of the Illinois Future Farmers of America swung into its first session this morning in the Exposition Building, State Fairgrounds.

Presiding at the impressive opening ceremony was Tommy Clark, State FFA President, Catlin. Other state officers who participated were Marion Greer, vice-president, Pinckneyville; Gwinner Snyder, secretary-treasurer, Assumption; and Gaylen Larson, reporter, Leland.

A talk by George T. Wilkins, superintendent of Illinois public instruction, climaxed this first session.

Highlighting the afternoon session were the semifinals of the public speaking contest and the extemporaneous speaking contest. Finals of both of these contests will be held tomorrow night, and the winners will be announced at that time. Area boys competing include (following is a list of boys competing in both contests):

Nearly 2,500 boys are attending this three-day convention, which winds up on Thursday night.

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State FFA Public Speaking Contest

Paul Castelein------Prophetstown
David Harkness------DeKalb
Tom Heinhorst-------Easton
Tom Winnings--------Lovington
Ken Korte-----------Metropolis
Leo Englebrecht-----Oregon
Jerry Hoffman-------Normal
Dick Peters---------Quincy
John Moody----------Bethany
Dwight Collins------Allendale

State FFA Extemporaneous Speaking Contest

Richard Carlson-----Woodhull
Paul Uphoff---------Flanagan
George Brown--------Waverly
Tom Bidner----------MaHomet
Gaylen Heagele------Mills Prairie
Bob Brandt----------Rock Falls
Ed Haack------------McHenry
Byron Koontz--------Roodhouse
Willard Gibbens-----Gibson City
Hank Krick----------Belleville

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display is so new that it doesn't even have a name yet. It carries only the designation C. I. 13278, which means Cereal Investigation No. 13278. Indiana plant breeders who developed this new variety of soft red winter wheat point with pride to its early maturity, stiff straw and good yield. They expect limited quantities of seed to be available for planting by the fall of 1960.

High-quality forage crops, such as the latest alfalfa varieties, orchardgrass and bromegrass, and band-seeding tests will be on display. The present-day productive varieties were unknown to the research workers of 60 years ago. At the turn of the century, alfalfa was believed to be unsuited to Illinois soils. But research workers discovered that when soils were inoculated with soils from Kansas, where alfalfa flourished, they could grow alfalfa in Illinois.

Agronomy Day visitors will also see and hear about work on soybean diseases, the latest insect situation, shading studies on corn, water use by crops, soil fertility studies and a special soil profile display.

One feature of the Agronomy Day that 1899 crop and soil scientists did know about was the Morrow Plots. But they knew only about 23 years of work, while scientists today can study the lessons from 83 years of tests on these world-famous plots. Through the past 60 years the plots have supplied much new valuable information to guide farmers in managing their soils for profitable production.

The Morrow Plots are located near the center of the University campus at Mathews Street and Gregory Drive in Urbana. The Agronomy Research Farm is located directly south of the main Champaign-Urbana campus. Farm tours begin at 9:30 a.m. Visitors may bring picnic lunches or get light refreshments at the farm.

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6/11/59

TIPS FOR ILLINOIS GARDENERS

FOR IMMEDIATE RELEASE

Keeping Cut Flowers Fresh

by J. R. Kamp
Floriculturist, University of Illinois

URBANA--Many home owners with flower gardens are probably wondering how to keep their cut flowers fresh.

The first step begins when the flowers are cut. Always use a sharp knife, and cut the stems with a slanting motion instead of straight across. A slanting cut does not damage the plant tissue and enables the plant to take up water.

The second step concerns the water in which the flowers are kept. Research has shown that flowers keep best under acid conditions. This is true regardless of temperatures. In Illinois, most water sources (tapwater in cities, wells or streams) are alkaline. Although the degree of alkalinity varies, most water supplies have a pH value of 8. This means that the water is definitely on the alkaline side.

To determine the alkalinity or acidity of water, the Central Scientific Company of Chicago markets an indicator paper under the name of Hydrion Paper. Use of this paper is an inexpensive and satisfactory way to determine the pH of a liquid. And it is a desirable tool for every flower gardener to have. The paper is usually sold only in bulk quantities, but smaller supplies might be available from florists or garden clubs.

If you find that your water is too alkaline for cut flowers, add some citric acid to make it more acid. How much to use depends on how alkaline the water is. Sulfuric acid can also be used, but citric acid is less caustic and is available in most drugstores.

The proper pH value for cut flowers ranges from 3 to 5. Any variation from that range will cause the flowers to dry out.

Reduction of the pH of water does not take the place of commercial preservatives that are available at all florists. But even with preservatives such flowers as roses and stocks are short lived in the home.

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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Dairy Scientists Hold Meeting at U. of I.

URBANA--More than 1,500 members of the American Dairy Science Association have gathered at the University of Illinois from all sections of the United States for sessions of their 54th annual conference June 15-17.

Starting with their registration on Sunday, June 14, in Garner House, one of the University's men's residence halls, the scientists and members of their families will spend the three days listening to reports of the latest research in the dairying field. They will also hear about new production and manufacturing methods as they meet in various interest groups.

Dr. David D. Henry, president of the University of Illinois, will welcome the visitors to the campus at the Tuesday morning general session. Recognition of outstanding members and presentation of awards will take place at 8:00 p.m. on Tuesday in the University Auditorium.

More than 200 research and production papers will be presented during the conference. They will be divided by interest groups into manufacturing, production and extension sections. One of the points of interest on the program for the manufacturing and extension sections will be a visit to the University dairy barns, where they will see the setup being built to do research work on automatic feeding of dairy cattle according to production.

Chairman of local arrangements has been G. W. Salisbury, head of the Department of Dairy Science at the U. of I. Program chairman is F. J. Babel, Purdue University.

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FOR RELEASE MONDAY, JUNE 15, 1959

Ion Exchange Takes Strontium-90 Out of Milk

URBANA--A University of Tennessee—Atomic Energy Commission research team has shown in experiments that up to 94 percent of radioactive strontium-90 can be removed from milk.

B. J. Demott and D. G. Easterly, University of Tennessee dairy scientists, have treated radioactive milk with an ion-exchange resin similar to that used in cylinder-type home water softeners.

Amount of strontium-90 removed depended upon experimental factors, they said. But it was possible to take up to 94 percent of the radioactive material out of the milk by adjusting these factors.

Results of this experimental work were reported here today to members of the American Dairy Science Association at the 54th annual meeting at the University of Illinois.

The process is not yet ready for commercial use, the Tennessee scientists reported. There are many questions about it yet to be answered. However, they believe that, should the need arise, commercial dairies could use the basic process that has been developed to get most of the radioactive strontium-90 out of milk.

Most of the strontium-90 that a dairy cow might get from a fallout-contaminated pasture passes from her body in the feces, the dairy scientists reported. However, some of it does get into the milk.

Findings of the Tennessee—Oak Ridge scientists indicate that the dairy cow will remain the most important source of calcium--especially for children--even if continually larger amounts of radioactive materials contaminate air, water, soil and plants from fallout.

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FOR RELEASE MONDAY, JUNE 15, 1959

Mammary Cells Produce Milk in Test Tube

URBANA--Some elements of milk have been produced by living cow mammary gland cells in a test tube at the University of Illinois.

Report of this research work will be part of two progress reports given today on successfully growing cow mammary cells in a tissue culture at the 54th annual meeting of the American Dairy Science Association at the U. of I. June 15-17.

C. R. Hoover, E. C. Hageman, K. E. Ebner and B. L. Larson, dairy scientists at the University of Illinois, will tell about their studies of the successful cultivation of bovine mammary gland cells in a test tube for more than a year. The three strains of cells developed by this method are known as ILLINI 1581, ILLINI 1582 and ILLINI 1583.

Purpose of these experiments is to find out the growth habits and characteristics of mammary gland cells. Although the conditions necessary to cause the synthesis of milk constitutents have been unpredictable in the test tube, lactose and beta-lactoglobulin have been synthesized in a few instances. Further studies are now in progress to find conditions necessary to control the growth of the cells and the synthesis of milk constitutents in the mammary gland tissue cultures.

Basic work of growing mammary cells in a test tube is attracting national interest. Recently the National Science Foundation granted Dr. Larson $40,000 to continue this basic research work for three years. It is hoped that this work will shed some light on the way in which mammary cells function and the reasons they are different from other living cells. This work is of special interest in relation

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to cancer problems because cancerous growths are virtually unknown in the udder of the dairy cow.

These two reports are among 119 papers being presented in the production section at the American Dairy Science Association meetings. Seventy-six papers will be presented in the manufacturing section and 12 papers in the extension section. These papers deal with the latest research findings in the field of dairying from research centers throughout North America.

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FOR RELEASE TUESDAY, JUNE 16, 1959

Thyroid Gland in Milk Cows Helps Control Production

URBANA--Sharp drops in milk production after a change in the forage ration of dairy cows is caused by the thyroid gland.

Tieup between a cow's thyroid and her milk production was found in research experiments conducted at the Wooster Experiment Station of Ohio State University by J. H. Vandersall, J. W. Hibbs and H. R. Conrad.

These results were reported today at a session of the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

Dairy farmers formerly could not always explain production declines in some of their good cows on the basis of either lower feed consumption or lower digestibility, the Ohio scientists reported. After the researchers had experimented with radioactive iodine to measure the effect of roughage ration changes, the clue to the trouble seemed to lie in the thyroid gland.

Using heifers at the Wooster station, the scientists fed alfalfa hay and then changed abruptly to legume-grass silage in one experiment. In another, using different heifers, they switched abruptly from mixed hay to grass silage and to legume silage. In all cases the rates of the radioactive iodine released into the heifers' blood streams increased; in similar heifers fed only alfalfa hay, the amount of iodine remained steady.

From these experiments the researchers conclude that there are substances in some forages commonly fed to dairy cattle that have a measurable effect on the thyroid gland, causing the drop in milk production.

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FOR RELEASE TUESDAY, JUNE 16, 1959

Sterile Sorghum Plant Makes Better Silage

URBANA--Dairy farmers can avoid the poor use by dairy cattle of the seed in sorghum silage by growing and feeding a sterile sorghum variety.

F. G. Owen, Nebraska Agricultural Experiment Station, Lincoln, reported results of experiments comparing the values of forage sorghums and corn as silages for lactating cows at the 54th annual meeting of the American Dairy Science Association here today.

Since cattle make poor use of sorghum seeds because they are so hard, the Nebraska researchers fed a recently developed sterile forage hybrid sorghum variety with about three percent of normal seed. In the tests they compared this variety with a common forage sorghum, Axtell, and with corn silage.

Apparently the male-sterile hybrid, RS 303F, transferred at least part of the nutrients normally stored in seed to its stalk and leaves, Owen said.

Milk production (on a four percent butterfat basis) and silage consumption were significantly higher for corn silage than for either sorghum, the tests revealed. Silage dry-matter intake, change in body weight and percent of butterfat in the milk did not differ significantly among the treatments.

These results showed sorghum silage to be slightly lower in feeding value than corn silage when each was fed as the only roughage. But when dairymen feed hay in their normal feeding programs, differences in value between corn and sorghum silages are probably not important, Owen stated.

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6/11/59

FOR RELEASE WEDNESDAY, JUNE 17, 1959

Compare Plastic With Stainless Steel Pipelines

URBANA--Plastic hose has worked as well as stainless steel for pipeline milking systems in experiments at the University of Illinois.

That's what more than 1,500 dairy scientists from all over the country heard as Professors M. H. Alexander and E. E. Ormiston reported results of their experimental work here today during sessions of the American Dairy Science Association. This was the 54th annual meeting of the association, held June 15-17 at the U. of I.

Visiting research people in the field of dairy production from all over the United States and Canada heard Alexander and Ormiston tell about the 12-week study in which a plastic milk pipeline was compared with a stainless steel pipeline. The study was designed to determine the possibilities of cleaning a flexible pipeline with the same flushing method that has proved satisfactory for several years for cleaning rigid pipelines.

Routine procedure for cleaning and sanitizing both the plastic hose and the stainless steel pipeline is as follows:

1. Rinse thoroughly for five minutes with clean water at a temperature of about 90° to 100° F. immediately after milking.
2. Wash with a hot synthetic alkaline detergent solution for about 20 minutes for three milkings. On the fourth milking, use an acid rather than an alkaline detergent. Both types of detergents are adapted to the hardness of the water.

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3. Sanitize by rinsing for five minutes with 200 parts per million of chlorine solution at 90° to 100° F.
4. Rinse with a similar chlorine solution just before next milking.

Alexander and Ormiston told the visitors that the results of this study clearly showed that milk of satisfactory quality could be obtained when transported from cows to the milk house through a plastic hose that had been cleaned as outlined above. They cannot predict how long the plastic hose will last in such an operation. They do know that it will be softened considerably if water of 170° temperature or higher is used for cleaning. However, when water at 140° to 145° is used, the hose stays firm.

Dairymen in Illinois can get more information on whether a plastic hose can be used on their farms for conveying milk from the barn to the milk house by contacting the Division of Milk Control, Department of Public Health, Springfield, Illinois.

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6/11/59

FOR RELEASE WEDNESDAY, JUNE 17, 1959

Discuss Bull-Testing Methods in Sweden

URBANA--Dr. Ivar Johansson, one of the leading dairy cattle authorities in the world, today discussed European dairy bull progeny testing methods in a dairy breeding symposium at the University of Illinois.

Occasion for Dr. Johansson's talk was the 54th annual meeting of the American Dairy Science Association at the U. of I. June 15-17.

He told association members how the methods of testing dairy bulls in Europe differ from the present method of dam-daughter comparisons used in the United States to evaluate sires. The methods employed there are all designed to eliminate the effect of different levels of feeding and management between herds and between periods when the production records were made.

For example, in Denmark a random sample of 18 to 20 daughters of a dairy bull are brought to a special testing station two months before calving, where the feeding and management are standardized in so far as possible. The testing period is for a ten months' lactation, during which milk and butterfat yields are determined on two consecutive days each week. The cost of testing the progeny of a bull with this method is about $1,500. This is probably one reason it is not used in more of the other countries.

In England the method that is used is to compare the records made by the first 20 or more daughters of a bull with records made by

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their stablemates. Sweden compares the records made by the first 10 daughters with the herd average calculated on first-calf records only. Norway uses a simple daughter average to evaluate sires.

Dr. Johansson is well qualified to present this subject, having spent his lifetime in the field. Presently he is a George A. Miller visiting professor of animal genetics at the University of Illinois on one year's leave of absence from the Royal Agricultural College at Uppsala, Sweden. He received a Ph.D degree from the University of Wisconsin in 1930 and received honorary doctor's degrees from the Agricultural Christian-Albrechts-Universitat of Keil, Germany, in 1951 and from the Royal Agricultural College of Sweden in 1953. He served as assistant dean of the Royal Agricultural College of Sweden from 1950 to 1955.

There has been increased interest both in this country and in Europe in methods of evaluating the transmitting ability of bulls since World War II. This interest is partly due to the rapid expansion in the use of artificial insemination. The object of most testing methods is to determine the transmitting ability of a sire as early as possible so that the poor ones can be culled and maximum use can be made of the superior ones.

About 1,500 dairy leaders from all over the United States and Canada took part in this symposium. They were interested in this detailed discussion of the methods of evaluating dairy sires utilized in European countries, because some features of these programs may be utilized to improve the U. S. system.

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6/11/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE MONDAY, JUNE 15, 1959

1959 ADSA Coverage Packet

Can Use More Solids-Non-Fat in Milk

URBANA--Results of a University of Arizona study of the fortification of milk with non-fat solids was presented today before the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

Dr. J. W. Stull and Dr. J. S. Hillman of the Arizona Agricultural Experiment Station discussed "Consumer Acceptance of Milk Beverages as Affected by Fat and Solids Non-Fat Content."

Purpose of this study was to see whether the flavor of milk beverages could be improved by adding non-fat solids. Such addition would use much of the present dry milk surplus.

Fifteen thousand persons in Tucson tasted various "experimental" milks of varying fat and non-fat solids levels. Roughly half of them were interviewed in supermarkets, and half were school children in the fourth to eighth grades.

Each taster was given one pair of samples and asked to indicate his taste preference. The milk samples were dispensed to adult tasters from special booths at various public places. Preferences of school children were collected in group tastings of about 100 students.

Preliminary results show that people generally prefer milk beverages fortified with non-fat solids to those not so fortified--provided both samples have the same fat level. But, surprisingly, low-fat milk that has been fortified holds its own in taste preference with milk having a normal fat content.

The study, which is scheduled to last three years, is sponsored by an annual grant from the American Dairy Association.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE MONDAY, JUNE 15, 1959

1959 ADSA Coverage Packet

Cows Vary in The Amount of Their Appetites

URBANA--Take two cows to dinner and you're likely to need two different menus.

What's more--like the woman who puts on weight no matter how little she eats, while her sister stays slim on the same food--two cows will react differently to the same diet.

In city terms, that's the gist of some discoveries reported today by J. Bruce Stone, graduate assistant in the New York State College of Agriculture at Cornell. He spoke today before the American Dairy Science Association meeting at the University of Illinois.

This work incidentally turned up another important fact: Contrary to the long-standing belief that dry matter is the same whether a cow gets it from grass silage or hay, Stone's studies repeatedly showed that there is something in silage that makes it better than hay. Stone's research showed that to produce 100 pounds of milk a cow needed five pounds less of total digestible nutrients from silage than from hay.

This study was prompted by the dairy farmer's need (because of the price-cost squeeze, particularly in the Northeast) to feed his cattle as economically as possible.

Whereas previous studies had almost always focused on which feed was most economical, Stone looked at the problem from the cow's point of view.

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Specifically, he aimed at determining three things: (1) how cattle differ in the consumption of dry matter from roughage; (2) what determines how much roughage a cow will eat--the amount of milk she gives, her size, daily change in weight, and most important, personal preferences; and (3) how cows differ in utilization of feed.

An unusually large number of Holstein feeding records were studied--those of 175 cows as compared with the usual research number of 15 or so. The work encompassed eight years.

By analyzing the feeding differences among cattle, along with each cow's variation from day to day, Stone found "highly significant" differences in the roughage intake among cows. These differences remained even after adjustments were made for variation in milk production, weight and change in weight, he said, indicating that, after all measurable allowances are made, dairy cattle still eat according to personal preference.

These results occurred in spite of the fact that the cattle were subjected to 60 different types of roughages. Stone noted that the cow who ate the most of one feed would also eat the most of another, showing that individual appetite, as much as if not more than diet, determines a cow's feed intake.

Finally, the research showed that cattle vary in the amounts of total digestible nutrients they need to produce 100 pounds of milk. Stone pointed out the cow giving the most milk usually was the one who best utilized her feed.

Next Stone plans to find out whether a cow's feed preferences are inherited. If they are, it will be possible for farmers to maintain highly efficient cows by carefully selecting the sires.

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6/11/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE MONDAY, JUNE 15, 1959

1959 ADSA Coverage Packet

Study Accuracy of Central Processing of DHIA Records

URBANA--More accurate feeding recommendations can be made when DHIA records are calculated by electronic data processing equipment, says J. D. Burke, Cornell University dairy specialist.

Daily production, butterfat test, individual body weight and amounts and kinds and qualities of roughage are considered in calculating the pounds of concentrates recommended for each cow in this system. It is more accurate than the usual "thumb" rules of one to three or one to four, which tend to overfeed low-producing cows and underfeed high-producing cows, Burke told members of the American Dairy Science Association at the 54th annual meeting here today.

Forage quality is a big factor in determining the amount of concentrates cows need. Research at Cornell shows that the feeding value of forages can be more accurately predicted from the harvesting date than from grade or appearance of the hay.

Under this modern system of calculating records, the DHIA supervisor reports the daily milk weights, test, pounds of feed consumed, harvesting dates and other pertinent facts about each cow and the herd as found on test day. This information is fed into high-speed computers, which compute the finished records. Other machines print a complete report, which is mailed to the dairyman each month.

The dairyman can quickly scan this report and see at a glance where he needs to change practices to further improve his herd. Some cows may need more feed; others may need less. Recommendations for feeding dry cows, when to breed and when to turn dry are also included.

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FOR RELEASE MONDAY, JUNE 15, 1959

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Study Breakdown of Stored Milk in Tennessee

Two University of Tennessee experiment station dairy researchers have found that changes in proteins of skimmilk upon which bacteria grow involve the following: (1) total protein content of the milk, (2) relative percentages of whey proteins and casein and (3) appearance of new components.

J. D. Skean, assistant in dairy, and W. W. Overcast, dairy husbandman, used high-quality pasteurized skimmilk that was inoculated with pure culture psychrophilic or cold-loving bacteria. They then stored this milk at a temperature of 40 degrees F. They counted the amounts and kinds of bacteria at 14-day storage intervals. They also measured the amount of bacterial growth and noted the kinds of changes that took place in the proteins.

Their analysis methods included the agar plate method commonly used in the study of bacteriology and the electrophoresis method, in which various protein components migrate at different rates. The paper strips are then dyed and scanned to determine protein changes.

Knowledge gained by the two Tennessee dairy scientists adds further to that already known about how long and at what temperatures milk can be stored or held by dairy processors.

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Older Cows Hit Higher Production Peaks

URBANA--Older dairy cows usually require more time than younger cows to reach peak production after freshening, according to Dr. O. T. Stallcup, dairyman with the University of Arkansas Agricultural Experiment Station.

Production at the peak tends to be higher after the third lactation, he told the audience here this afternoon for the 54th annual meeting of the American Dairy Science Association.

Holsteins average 38 days and Jerseys, 42, to reach peak production. Average time required to reach peak production tends to be longer with late winter or early spring freshening.

Over-all average maximum daily milk production for Jerseys is 31.5 pounds compared with 54.2 pounds for Holsteins, he said.

On the average, Jerseys produce 15 percent more milk per day at the peak in the second lactation than in the first lactation. They produce 48 percent more in the eighth lactation than in the first.

Holsteins produce from 19 to 92 percent more milk per day at the peak in the second and eighth lactations than in the first.

Dr. Stallcup based his report on analyses of milk production records collected over a 40-year period from the Arkansas Agricultural Experiment Station herd.

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Report Results of South Dakota Bloat Studies

URBANA--Bloat had no effect on the formation of methemoglobin in trials at the South Dakota State College Agricultural Experiment Station.

Results of the trials were reported here today by C. L. Moore, graduate assistant in dairy husbandry, at the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

When methemoglobin is formed, red blood cells carry less oxygen to the tissues.

A new way to measure blood pressure of bloated cattle has been developed by the Agricultural Experiment Station at South Dakota State College, Moore also reported.

One of the main arteries in the neck is brought to the surface by surgery, he explained. This makes it possible to measure blood pressure in different stages of bloat with little disturbance to the animal.

By using the new method, Moore has found that blood pressure remains fairly stable in the early stages of bloat but increases greatly in the severe stages. The heart rate also increases rapidly as bloat becomes severe.

Moore pointed out that this basic information is needed before researchers can determine why bloat causes death. With this new method they can follow what is actually happening in blood circulation.

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Kansas Dairy Scientists Study Casein in Milk

URBANA--An experiment to determine the relation of fluidity to concentration of casein in fluid milk was discussed here today by a Kansas State University chemist.

Dr. C. H. Whitnah studied the liquid in which increasing amounts of casein had been removed and four different sediments that had been resuspended in casein-free substances.

Speaking at the annual meeting of the American Dairy Science Association, Dr. Whitnah said he had found no simple relation between casein particle size and the relation of fluidity to concentration. It makes a difference, he said, at what temperature it is measured.

There are three possible commercial applications of this research. They involve stability of evaporated milk, water resistance of casein paint and water resistance of casein glue.

"We are trying to discover the nature and condition of the casein particles in milk. We hope the dairy industry will be able to improve such products as dried milk for making cheese and bread and the stability of evaporated milk," Dr. Whitnah added.

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Saliva May Help to Prevent Bloat

URBANA--The theory that saliva prevents bloating by stopping the formation of foam in the cow's rumen and permitting gas to escape is supported by research done by a Kansas State University graduate student, Harold H. Van Horn, Jr.

In a talk here today at an American Dairy Science Association meeting, Van Horn said that insufficient saliva may be a partial reason for bloat in dairy cattle. Or, he added, it is the mucin in saliva that is the factor needed in preventing bloat.

"Foam caused by grazing alfalfa and legume pastures traps gas in the cow's rumen, and she does not belch normally. Our laboratory tests show that the addition of saliva or linseed meal mucin to foaming rumen contents causes the gas to be released more quickly," Van Horn said.

He got a 30 percent increase in the gas released by adding 80 milliliters to 200 grams of foaming rumen contents.

Results of a laboratory experiment showed that a large amount of foam was formed when air was bubbled through a solution containing a compound extracted from alfalfa. Addition of saliva or linseed meal mucin prevented the formation of foam.

"If this laboratory experiment can be duplicated in the cow, she will be able to expel larger amounts of gas," he added.

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Ration Changes Do Not Alter Rumen Bacteria

URBANA--Slight but sudden changes in dairy cow rations did not cause "significant changes" in activity of bacteria in the paunch (rumen) of test dairy animals in a University of Kentucky dairy experiment.

That's the report of D. W. Claypool, dairy nutritionist, speaking to members of the American Dairy Science Association at the annual meeting here today.

Claypool said he used two rations. They were different only in that one contained ground barley and the other, ground corn. Test animals, for instance, got the ration with ground corn for a period and then were switched suddenly to the ground barley ration; animals on the ground barley ration likewise were switched suddenly to the ground corn. At the end of certain periods, the animals were returned to their original rations. During the switch-over period, Claypool checked on activity of bacteria in the paunch (first stomach).

He observed "no significant changes" in this bacterial activity, Claypool said, "under the experimental conditions." He presumes that, since the rumen activity was NOT altered significantly, the nutritional status of the test animals likewise did not change for the better or worse, despite the "slight but sudden ration changes."

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Note Importance of Twin Calves for Research

URBANA--How identical twin cows can aid dairy cattle research was stressed here today by a University of Minnesota scientist.

Jessie B. Williams said recent studies show that a single pair of identical twins, during their first lactation (milking) period, can be worth as many as 32 unrelated cows for feeding and management comparisons.

He spoke at the annual meeting of the American Dairy Science association at the University of Illinois.

Williams said twins are more efficient because they are genetically so much alike in the way they react to different kinds of treatment.

For later lactations, one pair of identical twins equaled between 5 and 10 unrelated animals--still a big increase in efficiency. Fraternal (non-identical) twins were only about a fourth as efficient as similarly treated identical twin cows.

It's clear that such increased efficiency from twins can make research more precise and, at the same time, less expensive, Williams said.

Scientists can perform an experiment on one cow and use its twin as a check. For example, one animal might get an experimental type of feed while the other receives a standard menu. By checking differences in growth, health or milk production, the researcher can tell which feed is better.

Identical twins have contributed to some important research findings. For example, Minnesota researchers found in one experiment with twins that cows will give about the same amount of milk regardless of the milking schedule. Another trial showed that a heifer that was fed early-cut hay grew faster than her identical twin sister that was fed hay that was cut later in the season.

The University of Minnesota now has 40 sets of identical twin and triplet calves, heifers, cows and bulls--the largest such collection in the United States. And they can use more. Minnesota farmers with identical twin calves and wishing to market them are urged to contact their county agents or the University dairy department.

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Report Studies on Antibody Production in Milk

URBANA--A new development in the protective milk principle was reported here today at the annual meeting of the American Dairy Science Association.

Herbert Struss, University of Minnesota dairy researcher, revealed that cows can produce antibodies in their udders at maximum levels during any stage of the lactation (milking) period.

Previously the belief was that antibody production was possible only during the first few weeks after calving. Had that been true, dairy farms would have been severely limited in the amount of antibody-containing milk they could produce.

Struss reported that continuous antibody production can be maintained in cows by injecting their udders with antigens (disease-producing organisms) at weekly intervals. He made this finding in work with W. E. Petersen, dairy cattle physiologist, and Berry Campbell, former anatomist at the University of Minnesota.

Petersen and Campbell first advanced the protective milk theory in 1955. It involves vaccinating a cow's udder with antigens of diseases that affect humans or other animals. The udder, Petersen and Campbell say, then produces antibodies that remain in the milk and that can produce immunity to the diseases in persons drinking the milk.

Struss used six cows that had been milking for periods varying from 8 to 175 days. He injected half of the udder of each with killed Brucella abortus antigen, the organism that causes brucellosis. Using killed tissue prevents actual transmission of the disease.

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Then Struss checked the milk and blood for antibody levels by using the plate agglutination test. He found no important difference in antibody level that could be traced to stage of lactation.

In another study, Struss said he injected cows with Salmonella pullorum antigens (the germs causing pullorum disease in chickens) at 5-, 10- and 15-day intervals. In all but one of the cows, the milk contained the maximum antibody level within 24 days after the first injection, indicating that subsequent injections had little or no effect. Struss said that experimental cows injected with antigens once each week are now producing antibodies in milk continuously throughout the lactation period.

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Calf Milk Replacers Need Added Fat

URBANA--Milk replacer for calves should contain some added fat, a University of Minnesota dairy cattle researcher said here today.

W. A. Olson reported studies on which 30 percent lard added to milk replacers doubled growth during the first 28 days.

Speaking at the annual meeting of the American Dairy Science Association at the University of Illinois, Olson explained why early growth is so important. Calves that grow more rapidly in the first four weeks, he said, are usually healthier and better able to fight off ailments like scours or pneumonia than are the slower growing calves.

Faster growth is also important, of course, if the calf is being raised for veal.

Olson compared 5, 10, 20 and 30 percent stabilized lard in milk replacer diets for dairy calves. At the end of 28 days, calves on the different replacers had averaged .39, .52, .49 and .65 pound of daily gain, respectively. Those getting no fat averaged .32 pound per day--or roughly half as much as those on the highest fat level.

As calves became older, however, the extra fat became less important. At weaning time, when the calves were 42 days old, average daily gain was .76 pound for those getting no fat and .93 pound for those on the 30 percent level. Those on other fat levels were in between these two extremes.

Calves getting no fat had more trouble with scours, Olson said.

In addition to the lard, milk replacer used in this study was made from fortified, low-heat, dry skimmilk solids. Thirty-three calves were used in the study.

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Louisiana Dairy Scientists Report on Feeding Studies

URBANA--Scientific papers covering late developments in dairy research are being presented today by staff members of the Louisiana State University dairy department at the annual meeting of the American Dairy Science Association at the University of Illinois in Urbana June 15-17.

Those taking part in the meeting are Cecil Branton, J. E. Johnston and L. L. Rusoff, all of Baton Rouge, and J. L. Fletcher, who is stationed at the Iberia Livestock Experiment Farm near Jeanerette.

Dr. Rusoff will report on studies dealing with the use of zinc bacitracin, an antibiotic, as a preservative in making White Dutch clover silage in upright concrete silos and in plastic silos. Dr. Rusoff says that the silage had good color, odor and acid fermentation and that steers showed a preference for it over silage preserved with molasses or sodium metabisulfite.

When dairy cattle were fed the silage, he adds, there was no effect on flavor or quality of milk due to feeding bacitracin-treated silage. Research in this field is being conducted by Dr. Rusoff, Dr. J. B. Frye, Jr., head of the dairy department, and C. P. Breidenstein.

Dr. Branton will report on research into the hereditary and environmental aspects of persistency of milk yield of Holstein-Friesians in Louisiana. Persistency refers to the degree with which the rate of milk yield is maintained throughout the milking period. Dr. Branton expresses the belief that, while weather in different seasons affects persistency and volume of milk yield by affecting the quality and

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quantity of forage, persistency is hereditary to an important extent. Research on the subject was conducted by Dr. Branton and G. D. Miller, also of the dairy department.

Dr. Johnston will discuss research regarding thyroid function and metabolic rate in dairy cattle kept in a climatic control chamber under uniform light, temperature, humidity and nutritional conditions for a 70-day period. This work was done by Dr. Johnston, G. A. Hindery, W. T. Burnett and A. Guidry of the dairy department.

Dr. Fletcher will discuss the findings of a two-year study of variations in the solids-not-fat content of milk from Holstein, Jersey and Sindhi-Jersey crossbred cows at the Iberia Station. He reports that there were variations in the tests at different times and that the effect of the season and stage of lactation was evident.

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Strip-Grazing Requires Less Space Per Animal

URBANA--With an orchardgrass-legume forage mixture, strip grazing required nearly a third less acres per animal than continuous grazing for dairy cattle in a test at Southern Illinois University, according to Arthur M. Sommer, candidate for the master of science degree at SIU.

Sommer's report on "A Comparison of the Performance of Dairy Cattle on Continuously Grazed and Strip-Grazed Pasture" was made today at the 54th annual meeting of the American Dairy Science Association at the University of Illinois. Co-authors of the report are Alex Reed, chairman of the SIU Animal Industries Department; Howard H. Olson, associate professor, and Howard F. Benson, research assistant.

Two similar groups of six dairy cows of Holstein and Guernsey breeds were assigned to two 6.3-acre plots of pasture. One plot was grazed continuously, and the other was strip-grazed for 125 days last summer.

Sommer said that above-normal rainfall during the trial period reduced the difference between the two pasture management systems because it increased forage production throughout the summer months in both areas. He said the difference may be more pronounced under normal weather conditions, when moisture shortages often occur in midsummer.

There was no appreciable difference in the milk production of the two groups of cows. However, the strip-grazed plot yielded more than three tons of air-dried hay from two cuttings of surplus forage in addition to the milk produced by the cows on this pasture.

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Find Fat-Splitting Yeasts in Cream

URBANA--Fat-splitting yeasts were found in nearly half of 1,680 cream samples examined by Dr. E. R. Garrison, dairy technologist with the Arkansas Agricultural Experiment Station.

Speaking here this afternoon at the 54th annual meeting of the American Dairy Science Association, Dr. Garrison said that nearly 14 percent of yeasts that were isolated and studied hydrolyzed fat. This means that these yeasts, which occur naturally in cream, were able to decompose fat and resolve it into free fatty acids and glycerol by taking up water. Free fatty acids impart a rancid, bitter flavor to cream, some of which may be carried over into the butter.

Over a two-year period, Dr. Garrison investigated the lipolytic yeasts in cream from Arkansas dairy farms. Cultures were isolated and identified on about 70 samples per month.

Selected yeast colonies from incubated samples were spotted in a medium containing dispersed fat and Nile blue sulfate. After four days the inoculations were examined for lipolysis--ability to decompose fat.

About 20 percent of the isolated colonies were lipolytic during the winter, while only about 10 percent were lipolytic during the summer.

Incidence of lipolytic yeasts in cream declined as the titratable acidity increased. Higher acidity evidently retarded growth of lipolytic yeasts, Dr. Garrison explained.

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Five Factors Influence Losses in Stored Silage

URBANA--Losses in stored alfalfa and oat silage are sometimes extremely high, according to research trials at the South Dakota State College Agricultural Experiment Station.

Howard H. Voelker, associate dairyman, presented the results of the trials today at the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

At least five factors probably influence losses in stored silage. Differences in preservation losses may be due to air tightness, silage surface exposed, depth of stored silage, type of crop ensiled and moisture content of the silage, Voelker stated.

Alfalfa silage lost 1.7 percent and 6.7 percent of its total weight in two trials when stored in air-tight glass-lined silos and 32.5 percent in bunker silos, Voelker pointed out. Loss of total weight of oat silage was 29.6 percent in a concrete stave silo and 37.1 percent in a bunker silo.

Oats ensiled in the soft dough stage lost 14.6 percent of their total weight, while oats ensiled in the early milk stage lost 35.4 percent when stored in upright silos. Losses in bunker silos were 30.9 percent in the soft dough stage and 33.8 percent in the early milk stage.

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Pasture and Silage Increase Milk Production

URBANA--J. K. Miller, graduate student in dairying, University of Georgia College of Agriculture, spoke on "The Interaction Between Spring Pasture and Grass Silage When Fed to Dairy Cows" today at the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

He said that recent research at the University of Georgia shows that a beneficial interaction for lactating dairy cows does exist between silage and pasture.

Three groups of lactating dairy cows were used, he explained, to determine this interaction. Each group was given a different treatment. One group was kept on pasture of rye and rye grass, one on grass silage and one on grass silage plus one hour of grazing daily.

The cows on the combination of pasture and silage, he said, increased milk production, body weight gains and feed intake more than was expected on the basis of performance of the other two groups of cows.

"However," he said, "the pasture group had the highest milk production, roughage intake and body weight gain, and the silage group the lowest. Also, no beneficial interaction in digestibility was found between the pasture and silage."

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Seek New Ways to Evaluate Milk

URBANA--W. A. Krienke, associate dairy technologist with the Florida Agricultural Experiment Station, today told the American Dairy Science Association that there is a need for ways to evaluate the plasma phase of whole milk.

He said some method of evaluation is needed from the standpoint of milk pricing, nutritional value, product yield and controlled properties of manufactured products.

A considerable amount of interest is being shown in solids-not-fat based on fat and lactometer reading. Krienke says studies have shown such values to be inadequate and misleading. When supplemented by values for protein, titratable acidity, pH and chlorides, however, they make possible a meaningful evaluation of milk plasma, said the technologist.

Krienke told the association that when established scientific explanations are applied, based on chloride values, together with pH and/or titratable acidity values, certain complementary relationships are evident. Such data may be useful in breeding programs aimed at increasing the protein content of milk.

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Use of Microscope Finds Antibiotics in Milk

URBANA--A direct microscopic method for detecting antibiotic activity in milk was described and discussed at the American Dairy Science Association Meeting here today by Dr. B. J. Liska, assistant dairy technologist with the Florida Agricultural Experiment Station.

This method is based on the principles that antibiotics inhibit bacterial growth and that some lactic streptococci undergo abnormal cell enlargement when exposed to certain antibiotics.

Research involved the use of rapidly growing streptococcus thermophilus culture. Antibiotic-free raw milk was used for comparison. Dr. Liska said methylene blue stains were prepared according to the Breed microscopic method. The average clump count of five fields was determined and compared with the average clump count for the control.

According to the technologist, an average clump count below 50 percent of that for the control indicates definite inhibition.

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"Eyeball Estimates" Can't Guess Feed Losses in Silage

URBANA--Farmers tend to judge the effectiveness of silage-making procedures by the amount of top or other visible spoilage they see when the silo is opened for use.

Research workers at the Dairy Cattle Research Branch of the Department of Agriculture at Beltsville, Maryland, reported here today that, while visible spoilage may be a useful guide, it falls far short of telling the total losses of nutrients that may occur in silages.

In addition to visible losses (spoilage), there are frequently large invisible losses in the form of gases and seepage that can only be determined experimentally. Experiments at Beltsville have also shown that the "invisible losses" bear no constant relationship to the amount of spoilage that may be seen. Shrinkage in volume of silage is also not a good measure of the losses that may occur, as in the tests invisible losses were sometimes twice as great as shrinkage would have indicated.

Both visible and invisible losses may be materially reduced by packing the silo well and applying reasonably air-tight covers. This is especially true in trench or bunker silos, in which greater surfaces are exposed to air. The cost of a good cover may be justified for preventing invisible losses alone.

The farmer may be selling himself short when he decides to dispense with a cover on bunker or trench silos on the basis of the amount of spoilage that can be seen.

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Feed Alfalfa Silage With Care to Heifers

URBANA--During certain times of the year, hay-crop silage may be the major source of feed for dairy heifers.

Research workers from the Dairy Cattle Research Branch of the U. S. Department of Agriculture, Beltsville, Maryland, report that, when alfalfa silage was fed for seven-month periods as the only feed to heifers from 5 to 12 or from 12 to 19 months of age, marked reductions in rate of growth occurred. When alfalfa hay was fed under similar conditions, growth rate was not impaired.

Similarly, when the heifers were changed from a ration of silage to one of hay, body weight gains recovered to such extent that they were normal in size at two years of age.

These results indicate that alfalfa silage is considerably less useful than alfalfa hay for growing dairy heifers. On the other hand, it can be used as the only feed for at least seven months of the year, provided other feeds, such as good-quality hay, are fed for six or seven months or more before calving.

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Undamaged Plastic Covers Preserve Silage Well

URBANA--Purdue University experiments with stack silos sealed with plastic covers demonstrate that excellent silage can be made with this method when proper ensiling procedures are used and the plastic is protected.

This report was given by Don L. Hill, Purdue dairy scientist, who with other members of the dairy department staff has observed 98 silos under farm conditions during the last two years. Hill reported this research at the 54th annual meeting of the American Dairy Science Association here today.

When good ensiling procedures were used, the silos were properly and quickly sealed and the plastic was not damaged, he said, there was no surface spoilage and excellent fermentations were obtained.

Less than highly satisfactory results were associated with poor ensiling procedures, improper sealing and damage to the plastic, he added. Humans and domestic animals were most frequently involved in causing damage to the plastic.

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Scientists Study New Ways to Test Milk Quality

URBANA--Monoglycerides, a product of fat breakdown in milk, can give a clue to the quality of cream, milk and cheese, a dairy scientist at the Storrs Agricultural Experiment Station at the University of Connecticut finds.

Dr. Robert G. Jensen,assistant professor of dairy manufacturing, and his co-workers at the Storrs Station have shown that monoglycerides are present in milk and milk products. They have also worked out a test for them and have learned about the different ways in which they affect the various properties of milk and milk products, Jensen told a session of the American Dairy Science Association meeting here today.

A test for monoglyceride, if one could be worked out that would be less cumbersome and difficult, might indicate to the processing plant manager how old the cream is that he buys and how well it has been handled.

A high monoglyceride content in butter would indicate that poor-quality cream was used in making it. The monoglyceride content affects the spreadability and body of the butter, Dr. Jensen says.

Monoglycerides influence the foaming and whipping ability of cream, but dairy scientists don't know just why.

Dr. Jensen's study of monoglycerides is part of a larger study to learn the effect of fat breakdown on the flavors and behavior of milk and milk products during processing.

Another phase of the study will explore the relation of time of lactation, feed and pipelines to the development of rancid milk.

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Dairy Researchers Learn More About Feeding Thyroxine

URBANA--Two University of Tennessee dairy researchers have found that there are no harmful carryover effects from feeding thyroxine to dairy cows.

E. W. Swanson, dairy husbandman, and A. F. McFee, assistant in dairying, found that dairy cows fed thyroxine were back to normal within two weeks after the feeding of thyroxine was discontinued. Furthermore, the cows remained normal, as was found by determining the amount of hormone blood iodine in their circulatory systems.

Feeding thyroxine to milk cows causes stepped-up metabolism and milk production. It also causes changes in blood iodine, which indicate a thyroid-like stimulation.

Swanson and McFee found that thyroxine doses that caused cows to greatly increase their milk production resulted in a protein-bound iodine level three or four times the normal level. They also learned that these high levels were maintained better in winter feeding experiments with dairy cows than in summer.

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New Pasteurization Method Gives Safe Milk

URBANA--Heating milk to 187° F. for as little as two-tenths of a second kills as many bacteria as heating to 143° F. for 30 minutes, the present public health standard for pastueurizing milk.

This improved technique was reported today to members of the American Dairy Science Association at the 54th annual meeting at the University of Illinois June 15-17.

L. D. Witter and Joseph Tobias, University of Illinois scientists in the Department of Food Technology, reported their research work on the ultra-high temperature, short-time pasteurization of milk.

New and highly efficient heat exchangers have made it possible to heat and cool milk and other liquids rapidly, Witter and Tobias said. Since long heating using harms delicate food flavors and frequently destroys nutrients, short heating times are desirable. However, before a change in the pasteurization procedure could be suggested, convicing evidence was needed that short-time pasteurization would be effective.

Proper temperature and time to use it were determined by adding heat-resistant organisms to milk and carefully measuring their survival after the milk had been heated to varying temperatures for different lengths of time.

These experiments were undertaken at the request of public health officials, equipment manufacturers and dairy processors.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE TUESDAY, JUNE 16, 1959

1959 ADSA Coverage Packet

Consume More Milk to Reduce Strontium-90 Accumulation

URBANA--Ways to combat the adverse publicity that milk has been getting as a carrier of strontium-90 were discussed in a meeting of dairy industry representatives here today.

These men met with scientists attending the 54th annual meeting of the American Dairy Science Association held at the University of Illinois June 15 to 17 to discuss ways to further research and public education about radioactivity in foods.

B. L. Larson, dairy biochemist in the University of Illinois Department of Dairy Science, reviewed current information on the responsibility of the dairy industry to gather and disseminate true facts about strontium-90 and milk. Recent work has shown that people who consume milk are actually accumulating lower levels of strontium-90 in their bones than people on non-milk diets.

Larson pointed out two reasons why the public has been made more aware of strontium-90 in milk than in other foods. First, milk is universally available in all areas of the country, so comparable analyses can be easily made. Second, the American public gets more than 80 percent of its calcium supply from milk. Since strontium-90 is associated with calcium, milk has received the most attention.

Recent work has shown that the actual level of strontium-90 in a food is not so important as its ratio to the calcium that is present. For example, the level of strontium-90 relative to calcium is about two times as great for vegetables as for milk and about 10 times as great for cereals.

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Figures collected on strontium-90 levels in human bones have shown that human bones from the southern hemisphere contain as much strontium-90 as those from the northern hemisphere, even though the southern hemisphere has received only one-fifth to one-third as much radioactive fallout as the northern hemisphere. A major factor in explaining this difference is that people in the southern hemisphere receive their calcium primarily from vegetables and cereals, whereas those in the northern hemisphere receive their calcium primarily from milk.

It is for these and other reasons that the milk companies and associations are concerned about the adverse publicity the American public has been receiving about milk. If the American people stopped using milk, they would actually be increasing their strontium-90 intake relative to required calcium by eating more vegetables and cereals.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Iowa Dairy Scientist Reports on "Cow Pool" Situation

URBANA--Feeding, management, sanitation and health are the biggest problems facing "cow pools," according to a dairy scientist from Iowa State College.

F. J. Arnold told a session of the American Dairy Science Association annual meeting here today that routine day-to-day management problems that are easily handled in small herds can limit the performance of individual cows and herds in a cow pool.

Keeping an adequate supply of high-quality hay or other stored forage for year-round feeding is a difficult problem, Arnold said. Such problems as disease loom large when large numbers of cow are assembled quickly from many different farms. Heavily populated lots mean that disease can spread quickly and the management must be ever alert to prevent the spread of disease. Mastitis, cow pox, leptospirosis, foot rot and pink eye can quickly hamper herd operations.

Sanitation, manure removal, flies in summer, difficulties in employing hired labor and appropriate handling of dry and fresh cows are additional problems of concern, and how well these aspects are handled may well determine the level of performance of cows kept in the pool.

If the "cow pool" idea spreads, and the indications are good that it will, the entire dairy industry is bound to be affected.

1. Participating dairy farmers will be forced to make drastic changes in their past operation.

2. Non-participating dairy farmers will face greater difficulty in marketing milk.
3. New farm enterprises will probably be undertaken. Example - raising heifers to milking age.
4. Milk markets will be affected greatly by cow-pool-produced milk because
   a. It will be more mobile than the same amount produced on scattered farms.
   b. Cow pool operators may choose to do their own marketing.
5. Allied industries will find serious implications in the development of cow pools.

During the past year nation-wide attention has been attracted to the large dairy operation commonly referred to as a "cow pool," which in a number of respects is unlike other large operations throughout the United States. Essentially a "cow pool" is an establishment that houses, feeds and milks many herds or cows from many farms on contract. The cow pool owner also markets the milk. The principal difference between this and other large operations is the relation that exists between the owners of the cows and the management of the pool.

Interest in "cow pools" has come about for a number of reasons. The big one unquestionably is the opportunity many dairymen see to switch from a manufactured milk market to a superior Grade A market without making the usual investment in equipment and facilities and, in some cases, without learning the necessary techniques required to produce Grade A quality milk. Another reason is the inefficiencies inherent in a small herd operation.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Oxytocin Affects Heat Cycle in Dairy Cows

URBANA--Oxytocin injections given dairy cows on days 3 to 6, inclusive, of the estrous cycle have produced precocious estrus at the 9th to 11th days instead of the usual 21st to 22nd days.

Prof. William Hansel, dairy scientist at Cornell University, Ithaca, New York, reported these experiments with oxytocin at today's session of the American Dairy Science Association at the University of Illinois.

The same effect is produced by placing self-retaining catheters, held in place by small water-filled balloons, into the uterus at the time of heat or one day afterward, Hansel reported. Both the oxytocin injections and the uterine catheters, which dilate the uterus, inhibit the normal formation and function of the corpus luteum, or "yellow body," in the ovary.

These results have two important practical implications: First, they seem to provide the basic knowledge necessary to produce heat and the release of a fertile egg in a given heifer at any predetermined time. It should be possible to utilize this knowledge to develop practical methods for producing estrus concurrently in a large number of heifers so that they can all be bred on a single day, or at least in a short span of time.

Development of such a method for regulating estrus may cause several changes in the livestock and dairy industries. Artificial insemination on a large scale in beef cattle would become a practical operation. Many dairy heifers now bred naturally at pasture by bulls of poor genetic merit would be bred artificially to good bulls.

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Second, these results offer a possible explanation of certain types of infertility in dairy cattle. They suggest that such factors as too frequent milking or leaving the milking machines on too long, which may cause the release of excessive amounts of oxytocin by the cow herself, may cause abnormal (cystic or small) yellow bodies to develop in the ovary that in turn lead to early death of the developing embryo in the uterus. Factors that dilate or irritate the uterus, such as inflammation or infection, may reduce fertility by the same mechanism.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Dairy Can Stretch Store Shelf Life of Cottage Cheese

URBANA--Dairy plants can manufacture cottage cheese that will have a shelf life of as long as 15 days at stores, according to research conducted at the University of Tennessee.

W. W. Overcast, dairy husbandman, and J. V. Britton, assistant in dairying, used wash waters that were slightly acid and chlorinated during the cottage cheese manufacturing process. The result: Initial psychrophilic counts, or numbers of the cold-loving organisms, such as coliform and other bacteria, and yeasts and molds were low when the cheese was made. Furthermore, these organism numbers were low until after 11 days of storage at 40 degrees F. Then some of the organisms that thrive at low temperatures began to grow.

Counts were first taken on the fresh cheese at 7 days. Coliform counts averaged less than 10 per gram, both right after cheese manufacture and at the end of the 7- and 11-day storage periods.

Initial total counts varied considerably, but this variation may be partly controlled by temperature and time of cooking, the two Tennessee dairy scientists say. They conclude that under carefully controlled dairy plant conditions cottage cheese can be manufactured with a shelf life of at least 15 days with development of little or no microbial off-flavors or visual defects. Such cheese should have great acceptance by consumers, they add.

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University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Early-Cut Orchardgrass Best Forage

URBANA--Nutritive value of early-cut orchardgrass is superior to later cuttings, studies at the Pennsylvania State University indicate.

It was also found that 200- and 300-pound levels of nitrogen fertilizer produced forage with slightly higher digestible energy values than 50- and 100-pound nitrogen levels produced.

Feeding trials of orchardgrass fed to sheep were discussed today by Dr. John W. Bratzler, Penn State animal nutritionist, during the 54th annual meeting of the American Dairy Science Association at the University of Illinois. Working with Bratzler on the study were Emery Keck, Jr., animal nutritionist, and Dr. Lawrence F. Marriott and Dr. John B. Washko, agronomists.

The 16-day interval between the first and third harvests resulted in maximum declines of 17.2 percent of digestible dry matter, 19.8 percent of digestible crude protein and 18.1 percent of digestible energy, respectively, Dr. Bratzler stated.

Three groups of four sheep in each group were used in the orchardgrass feeding trials. Eight-day intervals existed between harvest dates for the forage. The freshly chopped forage was artificially dried. Each group of sheep received forage of the same stage of maturity throughout the experiment.

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FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Carbonyls May Cause Stale Flavor in Dry Milk

URBANA--Stale flavor found in reconstituted dry whole milk may be due to certain chemical compounds, called carbonyls, formed in heating and storing the milk, a researcher from Pennsylvania State University reported here today.

Owen W. Parks, graduate assistant in dairy science at Penn State, said that 14 of these carbonyl compounds had been identified in laboratory tests. Parks spoke at the annual meeting of the American Dairy Science Association at the University of Illinois.

Various methods of separating carbonyl-type compounds from each other are being investigated at Penn State, Parks stated. Most of the stale flavor components found in dry whole milk tested in the laboratory have been removed by distilling under vacuum, he added.

The Penn State experimenter indicated that "flavor threshold values" would be needed for each individual carbonyl before conclusions could be drawn regarding the significance of carbonyls in the stale flavor of dry whole milk. He stressed the need for more data on identified carbonyls.

These findings by the Pennsylvania Agricultural Experiment Station may help the dairy industry solve the problems of stale flavor found in dry whole milk. Many people object to reconstituted dry whole milk because of the strange flavors.

Working with Parks on these Penn State experiments are Noble P. Wong, graduate assistant, and Dr. Stuart Patton, 1957 Borden Award winner of $1,000 for chemistry studies of milk.

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From Extension Editorial Office
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University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Dextrin Affects Butterfat Content of Milk

URBANA--Adding dextrin and sodium propionate to the concentrate ration of dairy cows had no effect on volume of milk produced, but affected bodyweight and butterfat production in an Alabama experiment reported at the 54th annual meeting of the American Dairy Science Association at the University of Illinois.

Dr. George E. Hawkins, Jr., associate dairy husbandman of the API Agricultural Experiment Station, Auburn, Alabama, described the test carried out to determine effects of concentrates and hays on physiological response of cows. Three concentrate rations were used in the test, one with 29.1 percent dextrin added, another with 9.7 percent sodium propionate added and the third with no additives. Hays compared were alfalfa, Johnsongrass and Coastal Bermudagrass.

All concentrates were similar when measured by milk production, both actual and 4 percent fat-corrected basis, the Alabama researcher explained. Different responses were obtained from the hays, Hawkins said. The cows on Coastal Bermudagrass produced 8 percent less milk than those on alfalfa or Johnsongrass. However, production of 4 percent fat-corrected milk was similar for the three hays, he said.

Butterfat percentage in milk was greater from cows fed Coastal Bermudagrass hay than from those on the other hays, and addition of dextrin and sodium propionate to the concentrate reduced total butterfat production, Dr. Hawkins concluded.

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From Extension Editorial Office
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University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

White Cell Count May Be Abortion Clue

URBANA--It is possible that the presence of high concentrations of white blood cells indicates a condition that causes abortion, Dr. G. B. Marion of Kansas State University said here today at the American Dairy Science Association meeting.

In this study of the uterus after calving, Marion and Dr. H. T. Gier investigated the time required for the uterus to return to a normal healthy condition so that it would be capable of maintaining another pregnancy. Dr. Gier is a member of the university zoology department.

About 65 percent of the cows that require more than one service conceive at the first service but fail to maintain pregnancy. The problem, the Kansas State dairy scientist said, was to find out why the pregnancy isn't maintained.

The study showed that, until at least 30 days after calving, the cow's uterus contains a great number of white blood cells. This finding is significant, in Marion's opinion, as it indicates an unhealthy condition.

Certainly this is added proof that it would be undesirable to breed cows back after calving until these white blood cells have disappeared. The scientists found, Marion said, that a high concentration of white blood cells has usually been associated with cases of repeat breeding.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Feed Intake Affects Cow's Milk Production

URBANA--Using identical Holstein-Jersey triplets, Dr. H. L. Dalton, of the University of Georgia College of Agriculture, Athens, and his co-workers studied some effects of three different levels of feed intake.

Dr. Dalton reported this research today at the 54 annual meeting of the American Dairy Science Association at the University of Illinois.

For the first 192 days, Dr. Dalton said the animals were given the same treatment. But during the next 245 days one animal was fed only hay, at 25 percent below normal TDN intake. The other two animals were fed hay and grain--one at normal TDN intake and the other at 25 percent above the normal TDN level.

"As a result," he reported, "The animal fed at below-normal TDN intake produced more milk than the others, but failed to make satisfactory weight gains. The animal fed the higher TDN gained the most and produced the least milk."

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From Extension Editorial Office
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University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Dry Feed Helps Prevent Scouring in Cows

URBANA--Succulent forages for dairy cattle often cause scouring, according to Dr. J. M. Wing, assistant dairy husbandman with the Florida Agricultural Experiment Station.

Dr. Wing says scouring can usually be controlled by feeding supplementary hay or dried citrus pulp. He reported to the American Dairy Science Association on an experiment designed to determine whether scouring affects digestibility of forage. The experiment was also designed to see whether supplementation with dry feed affected the intake of fresh forage.

Digestibility of dry matter in Louisiana white clover alone was 64 percent. When the forage was supplemented with 2.5 pounds of pangola hay or 3 pounds of dried citrus pulp, scouring was prevented and digestibility of dry matter was 59 percent.

Digestibility of dry matter in green oat forage alone was 70 percent. When 3 pounds of citrus pulp was added, it was 73 percent. Supplemented animals consumed slightly more of both forages.

Dr. Wing said supplementation did not appear to affect digestibility of these forages, but it did control scouring.

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6/15/59

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Life Expectancy of Desirable Bulls Going Up

URBANA--Average tenure of desirable bulls that went out of service during the period 1948-1957 increased as much as 85 percent over those that went out in 1939-1947.

Dr. R. B. Becker, dairy husbandman with the Florida Agriculture Experiment Station, today presented a preliminary life-expectancy table for desirable bulls to the American Dairy Science Association meeting at the University of Illinois. His report was based on a long-time study, begun in 1922, of the turnover in dairy bulls in natural service.

The study was sponsored in part by the National Association of Artificial Breeders. Records were contributed cooperatively by artificial breeding organizations in the United States and Canada and dairy breed associations.

The dairyman said that more than 29 percent of the dairy animals in the United States were bred artificially in 1957. The proportion should be larger when records are completed for 1958. A large proportion of replacement heifers were the result of artificial insemination.

Dr. Becker said an understanding of the average life expectancy of desirable bulls in artificial service could make it easier to estimate the average number of replacements needed annually.

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College of Agriculture
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Urbana, Illinois

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Hay Cutting Date Affects Its Digestibility

URBANA--USDA research has shown good correlation between date of cutting and feeding value or digestibility of first-cutting hay crops.

Experimental data collected at the Dairy Cattle Research Branch of the U. S. Department of Agriculture at Beltsville, Maryland, confirm similar reports from Cornell and from abroad.

However, probably because of latitude and elevation differences, the Beltsville prediction formula is different from that used at Cornell, according to USDA dairy scientists E. A. Kane and L. A. Moore.

Speaking today to a session of the American Dairy Science Association annual meeting at the University of Illinois, the USDA scientists said this probably means that a different formula is needed for varying locations.

Use of such a formula in connection with cutting date gives dairymen an objective way to evaluate the hay or silage they feed to their herds. They can get an estimate of feeding value of the forage from the date of cutting. So far the formula has pointed out the need to cut hay crops early so that they will have high enough nutritive value to maintain high levels of milk production.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Some Bacteria Help Prevent Cottage Cheese Spoilage

URBANA--Purdue University dairy specialists are paying a lot of attention to a special creaming mixture that appears to prevent certain types of spoilage in cottage cheese.

F. L. Babel, dairy scientist at Purdue, reports that a creaming mixture containing a certain streptococcus bacteria seems to prohibit slime growth and fruitiness.

Cottage cheese containing the organisms that produce these undesirable characteristics was creamed with the regular creaming mixture. Slime and fruit flavor developed in five days.

The scientists noted no defects in the cheese creamed with the special mixture at 12 days. Biacetyl, which adds flavor to cottage cheese, was also found to be higher than its initial value.

Similar results were recorded when other spoilage organisms were used; however, still other organisms were not affected.

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From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Colored Dye Finds Antibiotics in Cows' Milk

URBANA--A fast way to find antibiotics in cows' milk was described here today by a University of Nebraska scientist who has tested and perfected it.

Dr. Khem Shahani of the Nebraska Agricultural Experiment Station, in a talk delivered at the 54th annual American Dairy Science Association meeting, explained the use of colored dye in detecting the presence of antibiotics used to treat cows afflicted with mastitis.

Antibiotics used for mastitis therapy are secreted in milk and make it unsuitable for the manufacture of cultured dairy products. Also, there is a possibility that antibiotics consumed through milk might produce ill effects in human beings, Dr. Shahani pointed out.

The method involves mixing a green-turquoise dye with an antibiotic preparation and introducing it through the teat canal. The dye, along with the antibiotic, appears in milk, coloring it green. The color intensity of the dye in the milk is in direct relation to the antibiotic concentration. The dye appears in the milk for approximately the same length of time as the antibiotic.

Through this method, the Nebraska researcher explained, antibiotics can be detected visually without need for the present time-consuming bacteriological tests.

This method seems to work well with penicillin, aureomycin, terramycin or polymixin--the antibiotics often used for mastitis therapy, Dr. Shahani stated.

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Age and breed do not seem to affect the number of milkings for which the dye appeared in milk, he added. During storage of antibiotic-dye mixtures for several months, the dye exerted no appreciable effect on the stability of the antibiotics.

The dye does not seem to cause any apparent irritation to the udder tissue, adverse effect on the milk yield or health of the animal or toxic effects when consumed by humans, he concluded.

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From Extension Editorial Office
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University of Illinois
Urbana, Illinois

FOR RELEASE WEDNESDAY, JUNE 17, 1959

1959 ADSA Coverage Packet

Hormones Induce Milk Flow in Dairy Cows

URBANA--Ninety days of treatment were more successful than 180 days in a comparative test of hormone-induced lactation in dairy animals at Southern Illinois University last summer.

A report on this study given today by Howard H. Olson, SIU associate professor of animal industries, to the 54th annual meeting of the American Dairy Science Association at the University of Illinois, covers work carried on cooperatively with John R. Davis, SIU animal industries student.

Four animals, two infertile Jerseys and two infertile Guernseys, were used in the test. One of each received daily injections of 100 milligrams of progesterone and 100 gamma diethylstilbestrol for 90 days, followed by three milligrams of diethylstilbestrol daily for three weeks.

The other two received similar injections for 180 days, followed by daily injections of three milligrams of diethylstilbestrol for three weeks. Because of the poor response, the diethylstilbestrol dosage was doubled for an extra week.

Of the two methods, Olson found that the animals subjected to the 90-day treatment reached peak production earlier in the lactation period. The Jersey produced 25 pounds of milk on the 18th day; and the Guernsey, 23 pounds on the 20th day. Milking began on the ninth day of treatment.

For animals treated for 180 days, the maximum milk production for the Jersey was 11 pounds on the 40th day of lactation; for the Guernsey, 23 pounds on the 65th day.

Olson also reported that production of one of the animals in the test was similar in pattern to her earlier first lactation under normal conditions.

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6/15/59

farm Radio News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Records Show 1958 Livestock Income Increase

URBANA--Farm record summaries of 1958 operations show that most Illinois hog, beef cattle and dairy farmers had their best year since 1951. Although grain farm earnings rose slightly over 1957, they dropped below those of 1956, according to A. G. Mueller, University of Illinois agricultural economist.

Farm and family earnings on 220-acre hog farms in northern Illinois averaged $13,186 compared with $10,241 in 1957. Earnings of southern Illinois hog farmers averaged $6,934 compared with $5,744 in 1957. When hog prices dropped in 1955, the average was only $3,284 in the north and $2,688 in the south.

Mueller credits rising hog farmers' incomes to higher value of production per farm. But cash operating expenses and depreciation charges have been climbing since 1951. The average capital investment on these 220-acre hog farms in northern Illinois was $120,000. Interest charges alone add up to $5,160 a year and must be paid out of the earnings. On rented farms the earnings are divided between tenant and landlord.

Beef cattle farms made the highest earnings last year since 1951. The average was $11,946 compared with $9,312 in 1957. In

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1955, when cattle prices dropped, earnings averaged only $2,079. Mueller explains these improved earnings as due to higher cattle prices and higher volume of feeding on many farms. But, when a charge for interest on investment is taken out, almost $6,000 must be deducted from the total.

Illinois dairymen also had their best year since 1951. Earnings of a typical group of 220-acre northern Illinois farms averaged $9,207 compared with $7,311 in 1957 and a low of $3,635 in 1955. In southern Illinois, dairy farms of the same size made $7,582 last year compared with $4,617 in 1957.

Dairymen have faced steadily rising operating costs for the past three years, Mueller points out. Only by keeping their value of production rising have they been able to show reasonable returns for their labor, investment and management.

Earnings on 220-acre northern Illinois grain farms averaged $8,110 in 1958 compared with $7,564 the year before. Southern Illinois farms of a similar size averaged $6,037 in 1958 and $4,044 in 1957.

In 1956, when crop yields were unusually favorable, northern Illinois grain farmers earned an average of $10,191 and southern Illinois farmers averaged $9,324. Mueller explains that lower earnings this last year were due to lower yields, lower grain prices and rising costs.

For 1959, crop yields and grain prices will be the big uncertainties for several more months. Livestock farm earnings will depend much on hog and cattle prices. Operating costs will probably continue to increase.

The farm and family earnings figures reported here are the amount a farmer has left after he has paid all cash operating and depreciation costs. If the farm is tenant operated, the landlord and tenant must divide their earnings from this amount. The income that remains is what is left for family living, non-farm taxes, interest, debt payments and saving and investment. Mueller emphasizes that these income figures taken from actual farm records will differ from estimates made by the U. S. Department of Agriculture. In analyzing farm records, he uses different methods from those used by USDA economists.

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6/15/59

FOR IMMEDIATE RELEASE

Agricultural Alumni Name New Committees

URBANA--The University of Illinois College of Agriculture Alumni Association has named seven committees to carry out their activities for the coming year. Frederic B. Hoppin, president, Lincoln, announced the appointments in the June issue of the association newsletter published this week.

Roy Yung, Springfield, has been appointed membership chairman. Serving with him are William Mason, Clarendon Hills; Eldon Powell, Effingham; L. E. Hatch, Urbana; Don Walker, Champaign; Fred Painter, Ottawa; Roy Will, Chicago; I. Frank Green, Peoria; Denver Kunz, Carlinville; Emil Mosser, Carmi; Russell Tamreau, Lanark; and Edward Barnes, Olney.

William Dimond, Lovington, will serve as chairman of county alumni groups. Other members of the committee include Marvin Martin, Alexander; Don Haerr, Fairbury; Stanley Sims, Monmouth; Don Johnson, Geneseo; and Dean Searls, Camp Point.

Curt Eckert, Belleville, will serve as chairman of the public relations committee. Other members are Melvin Sims, Liberty; Emmett G. Fruin, Bloomington; Trevor Jones, Springfield; and R. J. Laible, Bloomington.

The historical committee appointed jointly by the Agricultural Alumni Association and Dean Louis B. Howard of the College of Agriculture are R. C. Ross, chairman; H. G. Russell, O. H. Sears and H. H. Thornberry, all U. of I. staff members from Urbana; and Donald Allen, Carrollton; Ralph Allen, Delavan; Paul Shuman, El Paso; and William Mason, Clarendon Hills.

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Melvin Sims, Liberty, will serve as investment committee chairman. Other members include Roy Yung, Springfield, and Lewis Clausen, Champaign.

Joe Ashbrook, Rossville, will serve as chairman of the recognition and awards committee along with Wilfred Shaw, Illinois Agricultural Association, Chicago; and John Behrens, Karl Gardner and H. W. Hannah, U. of I., Urbana.

Harold Guither, U. of I. assistant extension editor, will serve as editor of the newsletter. Karl Gardner, professor of dairy science, and Associate Dean of the College of Agriculture beginning August 1, will serve as secretary-treasurer of the association for the coming year.

The purposes of the College of Agriculture Alumni Association are to encourage higher standards of research, teaching and extension in the College of Agriculture; to help recognize the importance of the profession of agriculture; to assist the College of Agriculture; and to facilitate exchange of information among College of Agriculture alumni members.

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FOR IMMEDIATE RELEASE

Lambs Gain Well on Fatty Acid Diet

URBANA--Lambs at the University of Illinois have gained more than a pound on less than four pounds of feed.

This gain is much better than the usual pound on six pounds of feed that sheep feeders consider good in Illinois feedlots, says H. W. Essig, animal nutrition researcher at the UI Agricultural Experiment Station.

So far the rations used on the test lambs have been laboratory rations only, Essig explains. The essential nutrients in these high-powered diets have been some of the so-called volatile fatty acids, mainly acetic acid.

None of the feedlot rations now being fed to lambs contain volatile fatty acids as such, Essig explains. Normally these acids are formed in the rumen during digestion. Results of these experiments in which the rations contain high levels of volatile fatty acids show that it is these compounds that lambs use as their source of energy.

These lamb gains show researchers that ruminants can make good gains without eating any roughage at all. This does not mean that lamb and beef rations in the future will not contain any roughage. But the results of this series of experiments opens up a new area of research. New studies in this area may lead to some radical changes in farm feeder rations as cheaper sources of such ingredients as the volatile fatty acids are found.

Much work is yet to be done on relative costs of these new lamb ration ingredients, amounts to be fed in practical rations and development of new sources of the fatty acid ingredients before they can be recommended for farm feedlot rations.

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6/15/59

FOR IMMEDIATE RELEASE

Illinois Veterinarians Establish Research Grant

URBANA--The Research Fellowship of the Illinois State Veterinary Medical Association, the first of its kind to be established by a state veterinary medical association, has been granted for the coming year to Dr. M. L. Kaeberle, instructor in clinical medicine in the University of Illinois College of Veterinary Medicine.

Dr. Kaeberle is a native of South Dakota. He received the B.A. degree from the University of South Dakota in 1950, the B.S. degree from Colorado State University in 1952 and the D.V.M. degree from the same institution in 1954. The following year he was on the staff of the Department of Surgery and Medicine, School of Veterinary Medicine, Kansas State College; from 1955 to 1957 he served as veterinary epidemiologist on an extensive rabies research project with the United States Public Health Service; in 1957 he joined the staff of the University of Illinois. He will receive the M.S. degree in Veterinary Medical Science in February 1960.

Dr. Kaeberle is an outstanding scholar and a member of Phi Beta Kappa, Phi Kappa Phi and other honorary scholastic as well as scientific organizations, including among the latter Phi Zeta. He has been the recipient of the Borden Award, the Roud McCann Scholarship, a University of South Dakota tuition scholarship and a University of Illinois fellowship. Exceptional enthusiasm for and ability in research and scholarship distinguish Dr. Kaeberle's attitude and accomplishments.

With primary interest in clinical medicine, he endorses the spirit and intent of the Illinois Veterinary Medical Association in its support of research to gain new knowledge for more effective preventive and curative medicine.

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6/15/59
NO

for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Dairy Heifers Grow Best on Alfalfa Hay

URBANA--Dairy heifers seem to grow better on alfalfa hay than on alfalfa silage.

Leo Fryman, estension dairy specialist at the University of Illinois College of Agriculture, reports such an experiment with heifers at the USDA's Agricultural Research Center at Beltsville, Maryland. In this experiment heifers were successfully raised to calving time on 370 pounds of whole milk, 400 to 500 pounds of grain and all the good alfalfa hay they wanted to eat.

Substituting alfalfa silage for the hay caused lower feed consumption, lower rate of gain, lower weight at calving and slightly lower milk and butterfat production during the first lactation.

Production and body weight equalized as the cows became older. Production was the same during the second lactation for animals fed either hay or silage during their growth period. Body weight was equalized by the 5th, 6th or 7th year of age.

Supplementing the silage with a pound of hay daily for every 100 pounds of animal weight or with two pounds of grain daily produced heifers only slightly smaller than those grown on hay alone.

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RAJ:mfb
6/18/59

FOR IMMEDIATE RELEASE

Make Final Plans for Agronomy Day

URBANA--University of Illinois crop and soil scientists have mapped out a 19-stop tour for their annual Agronomy Day open house on Wednesday, June 24, at the agronomy research farm. Even though wet May weather delayed some planting operations, the agronomists assure visitors that they will see and hear about many new and worthwhile developments in crop and soil research.

Here are some highlights planned for this year's tour:

R. O. Weibel, who has charge of wheat breeding research, will display the 19 hard and soft wheat varieties he has on test. These plots will be nearing maturity, and features of the different strains can be seen easily at this time.

C. M. Brown, oat breeding researcher, will display 21 different varieties he is testing and comparing for yields, standability and other desirable features. The plots are progressing nicely, and the most desirable varieties should show up well by June 24.

H. B. Petty, extension entomologist, will report on the insect situation and will be prepared to answer questions.

D. W. Chamberlain, plant pathologist with the U. S. Regional Soybean Laboratory, will show soybean plots where work is under way to test various soybean strains for disease resistance. He will also discuss work with brown stem rot, bacterial blight and bacterial pustule.

F. W. Slife and R. L. Gantz will display the plots testing new chemicals for weed control and weed spraying equipment. Their work with granular-type herbicides is expected to attract wide interest.

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D. E. Alexander and R. L. Harrison will display the experimental plots where studies are under way to determine the best row spacings and planting rates for dwarf corn. If corn breeders develop a higher yielding dwarf hybrid, the agronomists will also be ready to recommend the best way to grow it.

H. H. Hadley and R. L. Bernard, soybean research workers, will report on work to determine the best soybean row spacing, planting rates and dates. Findings last year revealed that many farmers were losing soybean yields by planting soybeans in the usual 40-inch rows. Narrower rows produced higher yields. The study is being continued this year.

Forage crop variety and management research will also be on display. D. W. Graffis will display work on alfalfa varieties and cutting frequency. S. G. Carmer will show trials with orchardgrass-bromegrass mixtures. B. J. Gossett will display plots where legumes are being established with the aid of herbicides to control weeds.

A. L. Lang and L. B. Miller will display soil fertility studies under way on the research farm. Visitors will also have the opportunity to visit the world-famous Morrow plots near the center of the University campus.

Other tour stops will include use of gametocides to produce male sterility in alfalfa and soybeans, alternate planting of corn and soybeans, shading studies with corn, water use by crops and a special display of the soil profiles on the agronomy research farm.

Agronomy Day presents the opportunity for all Illinois farmers to see the latest crop and soil research in progress, hear about it from the scientists who are doing this work and ask questions about crops and soils they have always wondered about. Tours begin at 9:30 a.m. and will continue through the day. Visitors may bring their own picnic lunches or obtain light refreshments at the farm. The agronomy research farm is located directly south of the main University campus at Urbana-Champaign. Mark your calendar for June 24 and plan to attend.

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6/18/59

FOR IMMEDIATE RELEASE

UI Fruit Tree Fertilizer Studies Reveal New Facts

URBANA--Peach trees growing on sod require twice the normal nitrogen application.

Heavy applications of nitrogen delay maturing of apples.

Fruit trees on manganese-toxic soils accumulate 50 times the needed amount.

These facts have been revealed by recent fertilizer studies, reports John Titus, head of the University of Illinois pomology division. The studies were conducted at Urbana, at the Horticultural Experiment Station in Carbondale and in orchards of cooperating commercial growers.

Results of these studies will aid not only commercial fruit producers, but also the farm family that has only a few apple or peach trees, Titus points out.

For example, the first study determined the nitrogen needed by peach trees growing on sod in comparison with that required by trees on clean-cultivated land.

Peach trees on sod needed twice the normal nitrogen application in order to get the minimum amount they needed for good growth. On the other hand, peach trees on clean-cultivated land required merely a normal application.

The reason for the difference is that trees on sod must compete with the sod for water and mineral elements.

The effect of hay mulches on peach tree nitrogen requirement has also been studied. Results show that mulches reduce this

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requirement. Why? Mulching reduces competition for minerals and water. Mulched trees can therefore grow nearly as vigorously as trees under clean-cultivation.

Results of this study suggest the need for growers and farmers to increase nitrogen applications to peach trees growing on sod. While clean cultivation may increase peach tree growth, sound soil conservation methods must be practiced to minimize erosion losses.

A second recent study was made to determine the effects of nitrogen applications on Golden Delicious apples. Results show that heavy applications of this element delay maturing of apples.

Preliminary studies have shown that varying nitrogen levels affect the tree's uptake of calcium, manganese, potassium and phosphorus. Time of year, crop load and amount of pruning also affect uptake. More studies are under way to further investigate these findings.

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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Yellow Dwarf Disease Destroying Illinois Oat Crop

URBANA--Oat fields throughout southern and central Illinois have suffered serious damage from yellow dwarf disease, according to M. P. Britton, University of Illinois plant pathologist. As high as 100 percent of the plants in some fields are diseased.

This destructive virus disease is appearing in the northern one-fourth of the state now. Late-planted fields are more likely to be damaged than early-sown fields.

Five species of aphids, including the greenbug, are responsible for spreading the disease. The greenbug has been especially prevalent in central and western Illinois and is responsible for spreading most of the disease there, Britton points out.

First symptoms of the disease appear as faint yellowish-green blotches near the leaf tip. They enlarge into various shades of red, brown and yellow-orange. These affected portions turn red, and the leaves curl upward and eventually die. The root system is also severely stunted.

The most serious damage occurs when the plants fail to head out. Or shriveling and lower kernel test weight may occur.

University research workers have been trying to isolate strains of oats that show resistance to the disease so that they can develop resistant varieties. One resistant strain has been found. But no resistant variety is yet available.

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Yellow Dwarf Disease Resistance Alfalfa Released

Scientists finding resistance in wild alfalfa relatives have developed resistant germplasm lines which are released to P. Hibbard, University of Illinois plant pathologist. He says to 100 percent of the plants in each field are diseased.

This particular virus disease is transmitted by the aphid. Symptoms are red leaves that progressively worsen.

Plant breeders are working to develop resistant varieties for commercial use. The disease appears to be widespread in central and western Illinois and is responsible for many of the plants dying, particularly

First symptoms of the disease appear as light yellow green discoloration of the leaf tip. Then entire leaves turn red, brown and yellow-orange. These affected leaves fall off, leaving the plant with severe leaf reduction. The virus attacks in late spring or early summer.

The most obvious symptom is that the plants fail to grow out. It is distributed and there is only a few plants.

Laboratory research workers have been trying to develop resistance to the disease. One resistance strain has been found to withstand heavily the yellowing.

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FOR RELEASE WEDNESDAY, JUNE 24

Agronomists Report New Research Findings

URBANA--Agronomy Day visitors here today (June 24) helped celebrate 60 years of service by University of Illinois crop and soil scientists and saw some of the newest developments that will affect farming in years to come. The University's department of agronomy was formally recognized in August 1899.

D. W. Chamberlain, plant pathologist with the U. S. Regional Soybean Laboratory, told visitors that they have found sources of resistance for soybean bacterial blight and bacterial pustule diseases. This resistance has been transferred to new lines by hybridization, and they are now working to improve these lines until they are satisfactory for commercial use. An unusual type of resistance has been found to brown stem rot, and efforts are continuing to completely isolate it and introduce it into new varieties.

W. J. Starnes and D. A. Miller reported their efforts to use the chemical FW-450 to produce male-sterile soybeans and alfalfa. If a successful agent can be found, it could be used in breeding work and might eventually make hybrid soybeans and alfalfa possible. However, the FW-450 does not show much promise for this purpose.

R. L. Gantz and F. W. Slife reported their latest tests with weed control chemicals. They pointed out that one of the greatest benefits that farmers can expect from pre-emergence herbicides is control of annual grasses. Current research has shown how greatly corn and soybean yields can be cut when grass weeds are not controlled.

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C. D. Bolen and J. W. Pendleton displayed tests with alternating corn and soybeans. Since research has shown that light is the limiting factor in increasing corn yields, their tests are aimed at providing more light for corn plants by alternating strips of soybeans. Six rows of Hawkeye soybeans have been planted alternately with six rows of corn in both 40-inch and 24-inch rows. Planting in east-west and north-south rows is also being compared.

C. M. Brown displayed 21 different oat varieties he is testing. Varieties that have demonstrated superior performance for several years are Minhafer, Clintland 60, Clintland and Newton. Minhafer is several days earlier than the other three and for this reason should be better adapted to southern Illinois, Brown stated. But it has also done well in central and northern Illinois. Andrew, another variety with about the same maturity as Minhafer, has usually yielded quite well in southern Illinois, but it is weaker strawed and more susceptible to rust.

Clintland 50, Clintland and Newton appear to be the stiffest strawed varieties recommended at present. They mature at about the same time as Clinton. Minhafer and Clintland 60 have better rust resistance than other varieties now being recommended.

D. W. Graffis showed experiments to find the most profitable alfalfa cutting schedule. Tests have been made with spring clipping, fall clipping, three cuttings and four cuttings. Three cuttings at half bloom have yielded more than other schedules at DeKalb and Urbana, he reported. A four-cutting schedule yielded more at Carbondale. Spring and fall clipping schedules have yielded less than others.

R. L. Bernard, H. H. Hadley and J. W. Pendleton displayed their tests with varied row spacings, planting dates and varieties of soybeans. Rows were spaced 8, 24, 32 and 40 inches apart. Planting dates varied from early May to late June. Chippewa, Harosoy, Shelby and Clark varieties were used. Last year's tests showed that the 24-inch rows and early May planting produced highest yields.

A. L. Lang and L. B. Miller showed tests with rotations and soil treatments. Highest yields of corn and soybeans have occurred when the four-year rotation of corn, beans, wheat and hay was used and all soil received applications of lime, potassium, phosphorus and nitrogen.

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FOR IMMEDIATE RELEASE

Illinois Selected for Special Adult Education Program

URBANA--The Cooperative Agricultural Extension Service at the University of Illinois is one of six selected for a special adult education project in public affairs beginning July 1, Associate Director W. G. Kammlade, announced today.

A special grant of $40,000 will be made from the Fund for Adult Education to carry on this program during the next two and one-half years. The proposed plan submitted by the Illinois Extension Service provides for a new emphasis in adult education in two pilot counties. Champaign and DeKalb counties have been selected for the offering of programs in state and local problems and national affairs.

A program consultant will be added to the agricultural extension staff in each of the two counties. He will work closely with the local farm adviser and with the Department of Agricultural Economics at the University. H. G. Halcrow, head of the department, will provide general direction and L. H. Simerl, extension economist in policy and outlook, will serve as program supervisor. W. N. Thompson, associate professor of farm management, will also serve as a consultant.

The program consultant in Champaign county will spend about half of his time working within the county and the other half in the Department of Agricultural Economics developing informational materials for the program. The DeKalb county consultant will spend about three-fourths of his time in the county and one-fourth at the University.

Other states receiving grants for this project are Arizona, Michigan, Montana, Pennsylvania and Texas.

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FOR IMMEDIATE RELEASE

Removing Hazards Helps Reduce Farm Accidents

URBANA--"Safety Makes Sense." That's the theme of National Farm Safety Week that the Illinois Rural Safety Council is asking all Illinois farmers and their wives to observe July 19-25.

We can learn to prevent accidents if we realize what causes them. Modern safety puts stress on removing the causes, which often are carelessness, thoughtlessness or just plain being in too big a hurry, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture. When the cause is removed, the accidents just don't happen. Farmers could save many lives, plus thousands of dollars in hospital bills and property damage each year, if they'd follow these safety rules.

Here is the day-by-day program of safety rules being featured during National Farm Safety Week:

Sunday: Have reverence for life. Take time to take care.

Monday: Home safety. Emphasize the need for eliminating unsafe practices in the home.

Tuesday: Livestock. Keep small children away from animals, and be open-minded to safety suggestions.

Wednesday: Falls. Good planning reduces temptation to hurry, means better production and fewer accidents.

Thursday: Highway traffic. Be courteous, obey proper signals and signs on the highway.

Friday: Machinery. Don't depend on luck. Stop machines before unclogging, oiling or adjusting them.

Saturday: Review day. Check up on farm and home hazards you might have overlooked. Take safety seriously.

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6/22/59

FOR IMMEDIATE RELEASE

Test High-Moisture Corn for Dairy Cows

URBANA--Whether you will want to feed high-moisture corn rather than dry corn to your dairy cows will depend on some other things besides feeding value.

That's the conclusion reached by dairy scientists at the University of Illinois after tests this winter to compare results of feeding high-moisture corn with dry corn to the dairy herd there.

K. E. Harshbarger, UI dairy scientist in charge of the experimental work, reports that these test results show that dairy cattle make efficient use of high-moisture corn. But it is not superior in feeding value to regular corn.

You'll want to consider such other things as harvesting losses and cost of storage before you decide whether to switch to feeding high-moisture corn, Harshbarger believes.

Corn used in the experiments was harvested at 25, 30 and 35 percent moisture. It was stored in concrete stave silos, and top unloaders were used to remove enough for feeding each day.

One group of 24 Holstein heifers was divided into four smaller lots. Three lots were fed the three different levels of high-moisture corn, and one was fed regular 14 percent moisture corn. All four lots got limited hay and soybean meal. Average daily gains were 1.40 pounds for the heifers getting 25 percent moisture corn; 1.43 pounds, 30 percent corn; 1.52 pounds, 35 percent corn; and 1.55 pounds, 14 percent corn.

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Regular corn in the test was fed ground. The high-moisture corn was fed as shelled corn as it came from the silo. Whether grinding is needed to increase digestibility and utilization of the "soft" high-moisture corn was not determined.

Results of another experiment showed that grinding high-moisture corn does increase its feeding value.

In another feeding trial with 27 milking cows, three groups of cows were fed rations with the three levels of high-moisture corn. Each group of cows was fed one kind of corn for seven weeks and then switched to another kind until each group had been fed each kind of corn. In addition, the cows were all fed corn silage, sorghum silage and oat silage, six pounds of hay a day and two pounds of a soybean meal-mineral mixture.

So far as milk production was concerned, there were almost no differences. Average daily milk production corrected to 4 percent butterfat was 30.5 pounds for the cows on 25 percent moisture corn, 30.9 pounds for the cows on 30 percent moisture corn, and 31.5 pounds for the cows on 35 percent moisture corn. Efficiency of feed utilization by all three groups was the same.

RAJ:mfb
6/22/59

From Extension Editorial Office
College of Agriculture
University of Illinois
Urbana, Illinois

AGRICULTURAL EVENTS CALENDAR FOR ILLINOIS

July-August, 1959

July 1	Annual Field Day, Illinois Seed Dealers' Association and Illinois Crop Improvement Association. University of Illinois, Urbana.
July 9	Dixon Springs Experiment Station Purebred Ram Sale, Robbs.
July 13	State 4-H Judging Contests. University of Illinois, Urbana.
July 14	Agronomy Experiment Station Field Day. Dixon, Lee County, 1:30 p.m.
July 15	Agronomy Experiment Station Field Day. DeKalb, DeKalb County, 1:30 p.m.
July 16	Kaskaskia Station Swine Herd Improvement Association Field Day. Vandalia. 7 p.m. DST.
July 17	Dixon Springs Experiment Station Lamb Pool, Robbs.
July 17-19	Southern Illinois Rural Youth Camp. Southern 4-H District Camp, West Frankfort.
July 18	Illinois Purebred Sheep Breeders Ram Sale. University of Illinois, Urbana.
July 22	Jasper County Station Swine Herd Improvement Association Field Day. Ste. Marie, 1:00 p.m. DST.
July 27	All-Industry Poultry Day, Law Building Auditorium, University of Illinois, Urbana.
July 30	Cambridge Station Swine Herd Improvement Association Field Day. Cambridge, 9:00 a.m. DST.
July 31	Lawrence County Station Swine Herd Improvement Association Field Day. Lawrenceville, 1:30 p.m. DST.
August 1	Southwestern Station Swine Herd Improvement Association Field Day. 2:00 and 7:00 p.m. DST at Mascoutah.
August 1	Whiteside Station Swine Herd Improvement Association Field Day and Production-Tested Boar Sale. 7:00 p.m. DST at Sterling.
August 3-7	4-H Widlife Conservation Camp. 4-H Memorial Camp, Monticello
August 9-15	Illinois Farm Boys' Forestry Camp. Southern 4-H District Camp, West Frankfort.
August 9-12	American Institute of Cooperation Annual Meeting. University of Illinois, Urbana.

(continued)

Add Agr. Events Calendar - 2

August 14-23	Illinois State Fair, Springfield.
August 21-23	Illinois (West-Central) Rural Youth Camp. Camp Shaubena, Galesburg.
August 22-23	Illinois (Northern) Rural Youth Camp. Camp White Eagle, Adeline.
August 26-27	State Sports Festival. University of Illinois, Urbana.
August 31	Agronomy Experiment Station Field Day. Crawford County, Oblong.
September 4	Cattle Feeders' Day. University of Illinois, Urbana.

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6/22/59

THIS WEEK. . . .

AT DIXON SPRINGS

(A round-up of the week's work, activities and observations at the University of Illinois Dixon Springs Experiment Station near Robbs in southern Illinois, prepared by H. A. Cate)

If clipping or mowing does nothing else, it still improves the appearance of pastures. But we know that a good clipping program goes beyond appearance. It controls many annual weeds. It keeps out brush, sassafras and persimmon trees. But more important, it gives clover and lespedeza a chance to hold their own with the taller growing grasses.

The Morse bottom pasture is an example of proper grazing and mowing management of tall fescue. Seeded eight years ago in a bottomland field, the stand of fescue is still too good to plow down for corn. Last winter nearly 100 Station cows grazed and calved on these 60 acres from December to mid-April. They required only about two weeks of silage feeding. This spring, when the herd was moved to other pasture, the fescue was as short and smooth as a newly mown lawn. The clipping gave the lespedeza and ladino clover a chance to come along. After about a month, a breeding herd of 25 cows was moved back to the Morse pasture. Today the tall fescue is again being clipped, and the cows and calves are smooth and fat. Next winter we expect to have a reserve of fescue to use as green winter feed for a big herd.

Different Fescue Management

Fescue pastures that are managed differently from the Morse Bottom--neither sufficiently grazed nor mowed--will be solely fescue, with no legumes. Many pastures reach this condition. Then the question comes up: Can I raise good beef calves on such pasture?

Fescue is notoriously poor during the summer as a milk-producing grass. However, good calves can be raised on this pasture grass if they get some supplementary feed.

During the summer of 1958, George Cmarik, Station cattle researcher, stocked a fescue field with cows and calves and gave the calves no extra feed.

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These calves performed poorly, gaining less than a pound per head daily. Another group of cows and calves on similar pasture with a calf creep ration performed very well. The calves gained an average of 1 2/3 pounds a day. From May 8 to September 8 (123 days) the creep-fed calves each gained 91 pounds more than the non-creep-fed calves. The extra 91 pounds of gain cost a little less than $17.00 in feed; and at 30 cents a pound, the extra gain on each calf was worth over $27.00.

The creep ration, self-fed, was 450 pounds of ground ear corn, 450 pounds of ground oats and 100 pounds of soybean oil meal. The calves relished it and ate 6 pounds a day.

Whether on fescue or some other grass, we would expect similar benefits from creep-feeding suckling beef calves. On good legume-grass pasture, creep-feeding solely from the gain standpoint might be of questionable value, especially if the beef cows have reasonably good milking ability.

HAC:cm
6/24/59

farm Radio News

VERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Farmers Face Discounts on Mixed Wheat

URBANA--Many Illinois farmers will again face needless price discounts on the wheat they sell this year, according to L. F. Stice, University of Illinois grain marketing economist. These discounts, ranging up to 6 cents a bushel, are often assessed against wheat that grades "mixed."

Stice points out that official grade standards classify wheat as mixed if it contains more than 10 percent of another class of wheat. Since Illinois farmers produce both hard red winter and soft red winter wheat, these wheats often get mixed. Even though they look much alike, their flours perform differently in baking.

Soft red winter wheat is ideal for cakes, cookies and doughnuts. But hard red winter wheat makes much better flour for bread. Flour millers blend hard and soft wheat, but they must start with pure classes of wheat to make the highest quality flour. For this reason prices offered for mixed wheat are usually lower than the price of either hard or soft wheat.

To avoid the mixed wheat problem, Stice suggests that farmers in a trade area produce only one class of wheat. When both types are grown in the same community, grain dealers often cannot take time at harvest to grade all lots completely, and they may not have enough space to bin each class separately. Farmers are the eventual losers, so it is to their advantage to cooperate in getting a one-class wheat community, Stice emphasizes.

Plant breeders have developed several varieties of both soft and hard wheat that do well in Illinois. Farm advisers, seedsmen and grain dealers can help select the best adapted variety for the particular area.

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FOR IMMEDIATE RELEASE

Farm Implements Compete for Space on the Highway

URBANA--More than ever before, farm implements are competing with cars and trucks for space on our public highways.

This increase is one result of rapid mechanization on our farms, and it has brought with it added dangers, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

One-third of all tractor fatalities occur on public roads. Many others happen on private lanes and drives. Mile for mile, it is much safer to operate an automobile on public roads than to operate a tractor.

If at all possible, plan your farm work to reduce the exposure of slow-moving tractors and farm machinery to traffic hazards. The heavier the traffic, the greater the danger.

The rules of the road apply to farm tractors and implements as well as to cars and trucks. Come to a full stop when entering the highway, and do not proceed until the way is clear. Then stay on your side of the road.

If you must take your farm machinery onto the road at dusk or during darkness, proper lighting is a must. The evening hours are not only a period of heavy traffic, but also the time when it is hardest for the motorist to see. In the daylight hours, a red flag on a tall mast helps to draw the attention of the motorist to the hazards of slow-moving machinery.

The motorist should not be expected to assume the whole responsibility for safety on rural highways. You also must share this responsibility.

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FOR IMMEDIATE RELEASE

State FFA Judging Contests Draw 1,500 Boys

SPRINGFIELD--The state FFA judging contests, held on the University of Illinois campus Tuesday, June 23, drew a total of 463 teams consisting of 1,501 boys.

These Future Farmer of America members, representing 226 Illinois high schools, competed in livestock, dairy, poultry and grain judging.

The Pearl City FFA judging team captured first place in poultry judging. Coached by Clifton E. Wick, the team consisted of Leon Volkers, Eugene Baumgartner and Marvin Keatt. Fifty-seven teams and 195 contestants competed in this contest.

In grain judging, the Polo FFA team walked off with top honors. Team members included Larry Acker, Dean Cunningham and Jack Etnyre, coached by Keith McGuire. Sixty-eight teams and 225 contestants were entered in this division.

These two teams will represent Illinois in the national FFA judging contests held during the national FFA meeting in Kansas City in October.

Because of the large number of teams entered in the livestock and dairy judging divisions, only the top ten teams were selected. Some 181 teams were entered in livestock and 157 in dairy judging. These teams will compete again during the State Fair. The winning teams from this judging contest will then represent Illinois at the national contest.

Area teams that finished among the top ten in livestock and dairy judging include (a complete list of these teams is attached):

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Top Ten Teams: Livestock Division

Carlinville: Coach Stanley Klaus
Bill Gleason
Robert Greaves
Kim Woods

Geneseo: Coach Paul Chaney
Gregg Meier
Arlon Gradert
Rodger Stenzel

Gibson City: Coach C. H. Crowley
Lee Dueringer
Ronnie Warfield
Roger Dozier

Leland: Coach S. J. Fleming
Gerald Anderson
Jack Sawyer
Norman Wesson

Orion: Coach R. C. Kuhn
Charles Bloomberg
Bruce Engnell
Richard Rehn

Northwestern (Palmyra): Coach David I. Gates
Joe Reznicek
John Gordon
Charles Overby

Shelbyville: Coach Kenneth Diehl
Richard Halbrook
Joe Peek
Jim Shaffer

Stillman Valley: Coach D. A. Parish
David Erkleben
Darrell Richolson
Gary Lichty

Tampico: Coach Paul Nicely
Bill Smith
Laverne Tornow
Wayne Stithem

Wyoming Community: Coach Don Kerr
Gene Gill
Jerry Down
Joe Maher

Top Ten Teams: Dairy Division

Cerro Gordo: Coach Irving Nelson
Terry Atchison
Ronnie Burkhead
Jerry Shinneman

Lebanon: Coach P. H. Daigh
Earl Harpstrite
Robert Henss
Sylvester Korte

Marengo: Coach Robert N. Vogen
Jerry Grossen
Terry Grossen
Allan Schuring

Normal: Coach C. J. Kuster
Jo-Mar Alwes
James Brown
Larry Mohr

Pecatonica: Coach Ronald Welling
Vern Klenz
Gary Espenscheid
Roger Runte

Limestone (Peoria): Coach Paul Malmgren
Dale Schultz
Scott Dunham
Gerald Tjaden

Rochelle: Coach K. E. Wehner
Frank Beardin
Jack Fenwick
Fred Koch

St. Charles: Coach Wm. G. Marshall
Fred Ruh
Jim Verner
Dave Vanthournant

Seneca: Coach Sherwood Jackson
Ronald Boldt
Gerald Beck
Wesley Ratcliff

Sesser: Coach R. Mitchell
Fred Doerr
Dan Inabrit
David Samples

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PAC:mfb
6/25/59
NO

FOR IMMEDIATE RELEASE

U of I Striving to Conquer Fireblight in Pears

URBANA--Fruit crop researchers at the University of Illinois are striving to conquer fireblight, the scourge of pear producers everywhere. In fact, this disease is the chief reason why Illinois is not a major pear-producing state.

So reports H. C. Barrett, researcher directing the UI pear breeding program. He explains that the chances for controlling fireblight are extremely slim once it strikes. Consequently, his breeding program is designed to develop pear varieties that will be resistant to this damaging disease.

What is fireblight? It's a bacterial disease that can attack either the tree or its fruits. Once it strikes a tree, the only possible cure is tree surgery. The diseased part must be cut out just as human surgeons remove cancer-infected tissues. But new infections may still occur in other parts of the tree.

The tree fruits cannot be saved. They first become water-soaked, then gradually shrivel and rot.

According to Barrett, this disease is perhaps more prevalent in Illinois than in other states. The reason is that Illinois has so many nitrogen-rich soils that cause succulent tree growth. This type of growth particularly appeals to bacteria that cause fireblight.

Illinois environmental conditions are also conducive to fireblight. As a result of the warm, humid weather that settles on the state every summer, the causative bacteria spread more rapidly, carrying the disease with them.

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Fireblight is so named because after it strikes an orchard the trees become black and appear as if fire had swept through them.

Several control measures will help to prevent fireblight from occurring. Spraying fruit blossoms with antibiotic sprays discourages bacteria from infecting the blossoms. Applying insecticides will help to prevent insects from spreading the disease. Cultural practices to make the tree produce only moderate growth instead of succulent growth also aids in control.

However, Barrett explains that none of these practices are 100 percent effective. The best solution seems to be fireblight-resistant varieties.

He adds that several resistant varieties already exist. But none of them produce good-quality fruit that is pleasing to the taste. Consequently Barrett and his co-workers are crossing these resistant varieties with other non-resistant varieties that produce high-quality fruit.

Some of these preliminary fruit crossings are flowering for the first time this year. It will take at least several more years, though, before the researchers will have developed a resistant variety that is ready for commercial growing purposes.

Barrett notes that one of the major sources of blight-resistant breeding stock used in the program traces back to a single tree discovered in Farmingdale, Illinois. He is constantly on the lookout for old pear trees like this one that have not been infected with fireblight. He would appreciate it if anyone who has or knows of such a tree would contact him. His address is Department of Horticulture, University of Illinois, Urbana.

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FOR IMMEDIATE RELEASE

TIPS FOR ILLINOIS GARDENERS

Care of Strawberry Patch After Bearing Season

by Frank W. Owen
Fruit Crops Specialist, University of Illinois

URBANA--By this time most strawberry plants have finished producing berries. The question now facing home gardeners is: "What do I do with the plants?"

First of all, it should be explained that strawberry patches can produce fruit for several years if they are properly cared for. This means that diseases, weeds and overcrowding must be kept to a minimum. Otherwise the patch will produce only small berries and small yields.

Renovating action taken now will help to keep your patch near its production peak for several years.

First, mow off the tops of all berry plants. Use a rotary mower, farm sickle mower or lawn mower. Set the blade high enough to avoid damaging the crowns. You just want to remove the leaves.

Then rake up all leaves, old straw and other debris and burn them.

To prevent overcrowding, narrow the rows to 6 to 12 inches in width. Use a plow, roto-tiller, garden disk or hand hoe. Try to destroy all plant growth beyond the 6- to 12-inch width.

Remove all weeds left in the narrowed row.

The next step is fertilization. For one acre, broadcast 500 to 700 pounds of 5-10-5 or a similar fertilizer over the entire acre. Or use 5 pounds of 5-10-5 for every 100 feet of row.

Soak the soil until the moisture level is 6 inches deep. The best way is to let a hose run slowly over the ground. In addition, water the patch throughout the summer whenever it's dry.

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Also, cultivate whenever weeds sprout through the soil.

Allow runner plants to root as they form during the rest of the growing season. Rows should increase to a width of 18 to 24 inches. After this width is reached, remove all runner plants that form thereafter.

Check the patch often for signs of insects or disease. Spray accordingly. A spray schedule is available from the University of Illinois. Write to Department of Horticulture, 124 Mumford Hall, Urbana.

Most diseases will kill or stunt plants. And some diseases, such as red stele, require replanting with resistant varieties. Leaf diseases can be partly controlled by yearly renovation.

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for dailies

Farm News

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE · EXTENSION SERVICE

FOR IMMEDIATE RELEASE

Program Consultants Appointed for Adult Education Project

URBANA--The Cooperative Agricultural Extension Service at the University of Illinois today announced the appointment of two program consultants for a special project in extension education in public affairs and responsibilities. They are LeRoy F. Rogers, Fresno, California, and Carl E. McNair, Madison, Wisconsin.

Associate Extension Director W. G. Kammlade stated that this project will aim to advance the participation of the Cooperative Extension Service in education in public affairs. It will also encourage participation in and the exercise of leadership by local people in public affairs.

The Fund for Adult Education, an independent organization established by the Ford Foundation, has provided grants of $40,000 to each of the Cooperative Extension Services in Illinois, Arizona, Michigan, Montana, Pennsylvania and Texas to carry out this project during the next 2½ years.

Rogers graduated from California State Polytechnic College and received an M. S. in agricultural economics from Oregon State College. He has served as a cattle herdsmen and also as a food inspector

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in the U. S. Army; he is presently with the Security National Bank of Fresno, California. He will spend about half of his time working directly with the Champaign county extension service and half time in the Department of Agricultural Economics at the University.

McNair was born in Champaign and graduated from Lena, Illinois, high school. He graduated from the University of Illinois College of Agriculture in 1958 and will receive an M. S. degree in rural sociology from the University of Wisconsin in September. He is married and has one child. He will spend about three-fourths of his time working with the Extension Service in DeKalb county and one-fourth in the Department of Agricultural Economics at the University.

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FOR IMMEDIATE RELEASE

Early Lodging Causes Greatest Yield Loss in Small Grains

URBANA--Losses are much less when oats and wheat break over shortly before harvest than when lodging occurs soon after heading, according to research by University of Illinois agronomists J. W. Pendleton and R. O. Weibel.

In tests with oats conducted in 1957 and 1958, the completely erect plots produced yields of 68 bushels an acre. Plots that were artificially flattened at a 90-degree angle to the ground four days after heading produced yields of only 43 bushels an acre. When lodging occurred at only 45 degrees, yields averaged 59 bushels.

When the agronomists lodged the oats at 90 degrees 20 days after heading when they were in the hard dough stage, yields averaged 56 bushels. At 45 degrees the yields were 66 bushels.

In 1958 tests with wheat, the erect plots yielded 63 bushels an acre. Wheat lodged at 90 degrees on June 3 in the milk stage produced yields of 44 bushels. When lodged in the soft dough stage on June 10, yields averaged 48 bushels an acre. Plots broken over on June 17, when the wheat was in the medium dough stage, averaged 50 bushels. When the wheat remained erect until June 24 and had reached the hard dough stage, yields averaged 56.5 bushels, or about 90 percent of those on the completely erect plots.

This research was designed to answer the many questions farmers have about the condition of oats and wheat when they are hit by heavy wind and rainstorms. Fortunately, the improved lodging resistance bred into the small-grain varieties released in recent years has probably contributed much to the rising average yields of Illinois small-grain crops, Pendleton and Weibel report.

The report of this research appears in the summer issue of Illinois Research, published this week by the Illinois Agricultural Experiment Station.

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FOR IMMEDIATE RELEASE

Farmers Can Help Reduce Highway Accidents

URBANA--National Farm Safety Week July 19-25 offers sound advice for farmers, says O. L. Hogsett, extension safety specialist at the University of Illinois College of Agriculture.

This advice is that Illinois farmers should check and double-check the rules for safe operation of motor vehicles and farm machinery on the state's highways and byways.

One such rule to help reduce the heavy toll of traffic deaths is to observe safe driving and walking on the highway. Be especially careful when you are driving farm machinery on the road at dawn or dusk. See that your tractor has lights that are in good condition, and use them. Also, make sure any implement you are pulling is well lighted.

A stop sign means "stop," not just slow down and take a quick look. Always stop before entering a highway from a lane or field. Remember that slow-moving machinery on the highway is very dangerous, especially when the other fellow is careless. It is more important now than ever for farmers to develop attitudes toward farm safety that will help to reduce the toll of accidents.

"Safety Makes Sense."

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FOR IMMEDIATE RELEASE

U. of I. Studying Manganese Toxicity in Southern Illinois

URBANA--Farmers and growers who have manganese-toxic soils realize that crops grown on such soil suffer serious damage. One particular area where these soils may be found is in southern Illinois.

University of Illinois fruit crops researchers say that many fruit trees there accumulate 20 to 50 times the amount of this element they need for normal growth. This excessive manganese severely injures the trees and often kills them.

The problem, of course, is not a new one. In fact, H. H. Thornberry, now of the plant pathology department, began working on it some years ago. It is now in the hands of John Fucik, research associate.

Fucik is studying various factors that influence the availability of manganese. One such factor is lime. Apparently lime reduces the solubility of this element and thus prevents trees from taking it up so readily. Lime may also protect the plant internally from the injurious effects of manganese toxicity.

Until this problem is better understood, it is recommended that growers increase lime applications to soils with high levels of manganese. In fact, all soils with a pH of 5.5 or lower should receive lime.

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